

POTTER & CLARKE, Ltd.
Fairclough Street, E.1

POTTER'S CYCLOPÆDIA

OF

BOTANICAL DRUGS AND PREPARATIONS

FIFTH EDITION. 25th THOUSAND.

By R. C. WREN, F.L.S.

With Additions by E. M. HOLMES, F.L.S.

REVISED BY

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PUBLISHED BY

POTTER & CLARKE, LTD., 60, 62, & 64, ARTILLERY LANE,
LONDON, E.

1941.

LONDON *

PRINTED BY COOPER AND BUDD, LTD.,

PECKHAM, S E.15

Preface to First Edition.

FOR many years there has been a demand for a work which would, in a concise and matter of fact manner be a guide to all who use Botanical Drugs. Those engaged in Medical and Pharmaceutical pursuits are so often called upon to give particulars regarding the use and employment of Herbs, Roots, Barks, &c., that a work of this character might be considered indispensable; but until the present volume saw the light, no book claiming any degree of completeness has been available. *Potter's Cyclopædia* is issued in the hope that it may fill the gap, and in doing so be of genuine service to all interested in Medical Botany.

Briefly, its aim is to supply in a small compass the Common and Botanical title of every Herb in general use, together with its synonyms, action, preparations, and doses. The list of synonyms is the result of personal experience, combined with that of the writers of many books—ancient and modern—and it should be of great value.

An index to the therapeutic action of Botanical Drugs is added, one of Books bearing on the subject, and another of standard compounds of a Herbal character. The last is a compilation entirely, and we desire here to thank the publishers of various books from which they have been taken for their permission to reprint the formulas given.

The worth of a book of this kind depends very much upon the comprehensiveness and general arrangement of its index, and every endeavour has been made to put this in up-to-date form. The mistake of placing it at the end of the book has been avoided, and by means of the employment of distinguishing types, the whole of about 3,000 Common, Botanical, and Synonymous names are given in one complete reference.

R. C. W.

Preface to Second Edition.

IN the course of only a few years many new vegetable remedies are introduced, while others drop out of use entirely. It has been our endeavour to limit the drugs herein mentioned to those which are of commercial value and which may be regarded as obtainable; consequently several additions will be noted as well as omissions from the first edition.

The notable alteration in this edition is the descriptions given of the distinctive characteristics of each drug, by which, it is hoped, the general article may be easily identified. Mr. E. M. Holmes, F.L.S., perhaps the best-known authority in England on medicinal plants and drugs, has kindly undertaken to be responsible for this part of the work. Mr. Holmes has also revised the botanical names of all the drugs, supplied a glossary of botanical terms and a list of authorities, and to the latter is added a characteristically interesting explanatory note on this particular subject.

It has been found necessary to omit from this edition the Indexes of Books and of Medical Receipts, but as these were compilations, and the information otherwise obtainable, the usefulness of the work is not impaired. On the other hand the additional literary matter added has not only increased the number of pages, but will, it is hoped, enhance the value of the work to a very great extent. In its present form Potter's Cyclopædia should prove useful to every person who handles drugs or herbs in either a small or large degree.

R. C. W.

Preface to Third Edition.

THE success of the first two editions of Potter's Cyclopædia has been most gratifying, and it has proved that the work is of such a character as would commend it to all Pharmacists, and especially to those interested in Botanical Drugs and their preparations. In the Second Edition we were able to obtain the assistance of Mr. E. M. Holmes, F.L.S., who gave descriptions of the distinctive characteristics of each drug, and now, in order that the book may be considered of still further usefulness, we are giving illustrations of the growing plant. Owing to the limitation of space and the difficulty of obtaining illustrations of exotic and other foreign-grown drugs, we are able to illustrate only those whose *habitat* is largely British. By the kind permission of the publishers of Bentham's Handbook of the British Flora, we are enabled to give 200 illustrations. These are from the drawings by W. H. Fitch, F.L.S., and W. G. Smith, F.L.S. The inclusion of these illustrations naturally increases the price of the book, but we think that the extra amount charged will be found quite moderate considering its enhanced value.

R. C. W.

Preface to Fourth Edition.

POTTER'S CYCLOPÆDIA has now become an accepted book of reference in all parts of the world.

In the present Edition several new plants have been included and the properties of many of the older Herbal Remedies have been revised giving the latest experience of the Practitioner.

Nature has provided in the Vegetable Kingdom a cure for all diseases. If the remedy you seek is not to hand, plunge deeper into the forest and you will be rewarded.

Since the issue of the Third Edition, we have to regret the passing of Mr. R. C. Wren, F.L.S., and Mr. E. M. Holmes, F.L.S., whose names will be long remembered for their patient and exhaustive studies in Medicinal Plants.

By the courtesy of Messrs. Cassell & Co., Ltd., we are able to include several plates of Medicinal Herbs as they grow, photographed in colour direct from Nature.

H. P.

R. W. W.

Preface to Fifth Edition.

SINCE the production of the Fourth Edition of this work in 1932, there have appeared a new British Pharmacopœia and a new British Pharmaceutical Codex. Thus, many of the references to preparations in the last edition became incorrect.

The science of Botanic Medicine has also advanced very considerably, necessitating the careful revision of descriptions and botanical origins.

Every care has been taken to give information which is as accurate as possible, so that the present Edition should form a book of reference which is of great service to all who handle botanic drugs, and at the same time one of interest to the layman who cares to take an interest in the various herbs growing in the fields and woodlands of this beautiful country.

R. W. W.

Contents.

Index to Cyclopædia	..	.	...	...	...	ix-xlvi
Cyclopædia	...	...	...	...	...	1-388
Index of Therapeutic Action	.	...	...	...	...	389
Forms of Medicinal Preparations	...	...	...	...	...	392
Weights and Measures	...	...	...	...	...	396
Doses and their Equivalents	..	...	...	...	...	396
Herbal Compounds (Continental)	.	...	...	...	...	397
Glossary of Botanical Terms used in this Work	...	...	...	...	...	403
Abbreviations of Names of Authors of Botanical						
Names	...	...	...	...	...	414

Index to Cyclopædia

Common Names are in Capitals, as in ACACIA.

Botanical Names are in Italics, as in *Acacia Catechu*.

Synonyms are in Roman type, as in Adderwort.

- Abelmoschus moschatus*, 244
Abies Canadensis, 274
Abies sabirica, 272
Abrus precatorius, 192
ABSCISS ROOT, 1
ACACIA, 2
Acacia arabica, 1
ACACIA BARK, 1
Acacia Catechu, 75
Acacia decurrens, 1
Acacia, Gum, 2
Acacia Senegal, 2
Acer rubrum, 226
Achillea millefolium, 382
ACONITE, 2
Aconitum Napellus, 2
ACORNS, 3
Acorus Calamus, 64
Actæa racemosa, 98
ADATODAI, 222
ADDER'S TONGUE, AMERICAN, 3
ADDER'S TONGUE, ENGLISH, 4
Adderwort, 36
Adhatoda Fatica, 222
Adiantum Capillus-Veneris, 222
Adonis, 168
Adonis vernalis, 168
ADREX, 4
ADUKA, 222
Agle Marmelos, 24
Agopodium Podagraria, 156
Æsculus Hippocastanum, 175
Aethusa Cynapium, 141
Aframomum Melegueta, 157
African Pepper, 77
AGAR-AGAR, 4
Agaric, Larch, 6
Agaric, Purgine, 6
Agaric, Surgeon's, 12
Agaric, White, 6
AGARICUS, 6
Agrimonia Eupatoria, 7
AGRIMONY, 7
AGRIMONY, HEMP, 169
Agrimony Water, 59
Agropyrum, 110
Agropyrum repens, 110
Ailanthus glandulosa, 351
Ailanto, 351
Ajenojo, 381
Ajuga Chamæpitys, 159
Ajuga reptans, 54
Alcaravea, 70
Alchemilla arvensis, 262
Alchemilla vulgaris, 201
ALDER, BLACK, AMERICAN, 7
ALDER, ENGLISH, 7
Alder, Common, 341
Alder, Red, 341
Alder Smooth, 341
Alder, Spotted, 376
ALDER, TAG, 341

- Alehoof, 158
Aletris farinosa, 356
 Alexandrian Senna, 316
 Alfalfa, 219
 Alhenna, 170
 Alicante Saffron, 301
Alisma Plantago, 366
 ALKANET, 8
Alkanna tinctoria, 8
 Alkekengi, 375
 Allheal, 382
Allium Ascalonicum, 318
Allium Cepa, 254
Allium sativum, 148
 ALLSPICE, 9
 ALMONDS, BITTER, 9
 ALMONDS, SWEET, 9
 Almonds, Jordan, 9
Alnus glutinosa, 7
Alnus rubra, 341
Alnus serrulata, 341
Aloe ferox, 10
Aloe Perryi, 10
Aloe vera, 10
 ALOES, 10
 Aloes, Barbadoes, 10
 Aloes, Cape, 10
 Aloes, Socotrine, 10
 Aloes, Zanzibar, 10
Aloysia citriodora, 212
Alpinia officinarum, 145
Alsidium Helminthocorton, 108
Alsine media, 86
 ALSTONIA BARK, 11
Alstonia constricta, 11
Alstonia Scholaris, 12
Althaea officinalis, 228
Althaea rosea, 172
 Alumroot, 113
 AMADOU, 12
 AMARANTH, 13
Amaranthus hypochondriacus, 13
Amaranthus melancholicus, 13
 Araber Resin, 100
 AMERICAN ADDER'S TONGUE, 3
 American Angelica, 14
 AMERICAN BEARSFOOT, 29
 AMERICAN BITTERSWEET, 38
 AMERICAN BLACKBERRY, 39
 AMERICAN BLACK WILLOW, 373
 AMERICAN BOXWOOD, 47
 AMERICAN COLUMBO, 102
 AMERICAN CRANESBILL ROOT,
 113
 American Dogwood, 47
 American Greek Valerian, 1
 AMERICAN GROUND PINE, 159
 AMERICAN HELLEBORE, 166
 American Horsemint, 176
 AMERICAN IVY, 188
 American Larch, 342
 AMERICAN MANDRAKE, 225
 AMERICAN LIVERWORT, 214
 American Raspberry, 292
 AMERICAN RED OSIER, 257
 American Saffron, 301
 AMERICAN SARSAPARILLA, 306
 AMERICAN SEA-LAVENDER, 314
 American Sloe, 40
 AMERICAN SPIKENARD, 329
 American Valerian, 202
 American Veratrum, 166
 AMERICAN WAKE ROBIN, 362
 AMERICAN WHITE POND LILY,
 368
 American Wormseed, 379
 AMMONIACUM, 13
 Ammoniac, Gum, 13
Amomum Curcuma, 352
Ampelopsis quinquesolia, 188
Amygdalus Persica, 264
Anacardium occidentale, 73
Anacyclus Pyrethrum, 265
Anagallis arvensis, 272

- Anamirta paniculata*, 96
Anchusa, 8
Andira Araroba, 152
Andira inermis, 62
Andrographis Paniculata, 88
Anemone hepatica, 214
Anemone, Meadow, 286
Anemone pratensis, 287
Anemone Pulsatilla, 286
Anethum gracile, 121
 ANGELICA, EUROPEAN, 14
Angelica Archangelica, 14
Angelica atropurpurea, 14
Angelica, Garden, 14
 ANGUSTURA, TRUE, 14
Anhalonium Levinii, 234
Anisa stellata, 331
 Anise, 15
 Anise, Chinese, 331
 ANISEED, 15
 ANNATTO, 15
 Annotta, 15
Antennaria dioica, 207
Anthemis Cotula, 232
Anthemis nobilis, 81
Anthemis Pyrethrum, 265
Anthoxanthum odoratum, 358
 Apol, 261
Apium gracile, 80
Apium fetroselinum, 261
Apocynum androsaemifolium, 37
Apocynum cannabinum, 68
Apocynum pubescens, 68
 APPLE, BITTER, 36
 Apple, May, 225
 Apple, Thorn, 336
 Arabic, Gum, 2
 ARACTIS, 16
Arachis hypogæa, 16
Aralia nudicaulis, 26, 306
Aralia quinquefolia, 151
Aralia racemosa, 329
 Araroba, 152
 Arbor Vitæ, 346
 ARBUTUS, TRAILING, 16
 ARCHANGEL, 17
Arctium Lappa, 56
Arctostaphylos Uva-ursi, 356
Areca Catechu, 17
 ARECA NUT, 17
 ARENARIA RUBRA, 17
Arillus Myristicæ, 220
Arisaema triphyllum, 362
Aristolochia longa, 36
Aristolochia reticulata, 322
Aristolochia Serpentaria, 323
 ARNICA, 18
Arnica montana, 18
 Arnotta, 15
 ARRACH, 18
 Arrach, Stinking, 18
 ARROWROOT, 20
 Arrowroot, Bermuda, 20
 Arrowroot, Brazilian, 345
 Arrowroot, Indian, 362
 Arrowroot, Natal, 20
 Arrowroot, St. Vincent, 20
 ARSESMART, 322
Artanthe elongata, 231
Artanthe hexagona, 33
Artemisia Abrotanum, 327
Artemisia Absinthium, 381
Artemisia chamaemelifolia, 380
Artemisia cina, 380
Artemisia Lercheana, 380
Artemisia maritima, 380
Artemisia pauciflora, 380
Artemisia Stechmanniana, 380
Artemisia vulgaris, 242
Arum maculatum, 116
Arum triphyllum, 362
 ARUSA, 222
 ASAETIDA, 20
 Asaetida, Gum 20

- Asafœtida, 20
Asagraea officinalis, 300
 ASARABACCA, 21
Asarum Canadense, 151
Asarum Europæum, 21
Asclepsia incarnata, 341
Asclepias procera, 66
Asclepias tuberosa, 276
 ASH, 21.
 Ash, Bitter, 288
 Ash, Common, 21
 Ash, European, 21
 Ash, Ground, 156
 ASH, MOUNTAIN, 238
 ASH, PRICKLY, 283
 ASH, WAFER, 360
 Ash, Weeping, 21
 Ashweed, 156
Asimina triloba, 259
 ASPARAGUS, 22
Asparagus officinalis, 22
 Aspen, Quaking, 280
Asperula odorata, 378
Aspidium Filix-mas, 224
Aspidosperma Quebracho, 289
Asplenium Scolopendrium, 163
 Asthma-weed, 133
Astragalus gummifer, 350
Atropa Belladonna, 29
 Aunée, 126
 Australian Cinnamon, 253
 Australian Quinine, 11
 Australian Febrifuge, 11
 Ava, 195
 'Ava Pepper, 195
Arena sativa, 252
 AVENS, 22
 Avens, Water, 22
 AZADIRACHTA, 24
 Babul Bark, 1
Bacca Spinæ-cervinæ, 52
 Badiana, 331
 BAEL, 24
 Bael, Indian, 24
 Bahia Powder, 152
 Bâkas, 222
 Baldmoney, 149
Ballota nigra, 175
 BALM, 25
 Balm, Lemon, 25
 Balm Mint, 268
 Balm, Mountain, 386
 Balm, Sweet, 25
 BALM OF GILEAD, 25
 BALMONY, 26
 Balsam Capiivi, 105
 Balsam Copaiva, 105
 Balsam of Peru, 270
 BALSAM, PERUVIAN, 270
 Balsam Styracis, 335
 Balsam Tolu, 348
 Balsam Weed, 192
Balsamodendron Myrrha, 246
 BAMBOO BRIER, 26, 306
 Baptisia, 370
Baptisia tinctoria, 370
 Barbadoes Aloes, 10
 BARBERRY, 26
 BARLEY, 27
 Barley, Caustic, 300
 Barley, Pearl, 27
Barosma betulina, 51
 Barra Gokhru, 58
 BASIL, 27
 Basil, Sweet, 27
 Basil Thyme, 64
 Bastard Saffron, 301
 Bay, 203
 BAYBERRY, 28
 Bay, Sweet, 203
 Bearberry, 356
 Bearsbed, 163
 BEARSFOOT, AMERICAN, 29

- Bearsweed, 386
 BEDSTRAW, LADIES', 201
 Bedstraw, Yellow, 201
 BEEBEERU BARK, 29
 Bel, 24
 BELLADONNA, 29
 Bengal Quince, 24
 Benjamin, Gum, 32
 BENNE, 30
 Bennet, Herb, 22
 BENZOIN, 32
 Benzoin, Gum, 32
 Benzoin, Palembang, 32
 Benzoin, Siam, 32
 Benzoin, Sumatra, 32
 Berberidis, 26
 BERBERIS, 33
Berberis aristata, 33
Berberis Aquifolium, 240
Berberis dumetorum, 26
Berberis vulgaris, 26
 Berbery, 26
 Berberry, Holly-leaved, 240
 Bermuda Arrowroot, 20
 Besom, 48
 Betel Nut, 17
 BETEL, 33
 BETHROOT, 34
Betula aquatica, 364
Betonica officinalis, 378
 BETONY, WATER, 364
 BETONY, WOOD, 378
Betula Alba, 35
 Bhang, 181
 Bilatu Bark, 29
Bidens tripartita, 59
 Bigarade Orange, 254
Bignonia Caroba, 71
 BILBEVERIS, 31
 Birch, EUROPEAN, 35
 Birch, White, 35
 Bird Pepper, 77
 Birdlime Mistletoe, 236
 Bird's-Eye, 328
 Bird's Nest, 369
 Birthroot, 34
 BIRTHWORT, 36
 Bishop's Leaves, 364
 Bishopswort, 378
 BISTORT, 36
 Biting Persicaria, 322
 BITTER APPLE, 36
 Bitter Almonds, 9
 Bitter Ash, 288
 Bitter Cucumber, 36
 Bitter Herb, 26
 BITTER ORANGE, 254
 BITTER ROOT, 37
 BITTERSWEET, 38
 BITTERSWEET, AMERICAN, 38
 Bittersweet, False, 38
 Bitter Wood, 288
Bixa Orellana, 15
 BLACKBERRY, AMERICAN, 39
 BLACK BRYONY, 50
 BLACK CATECHU, 75
 Black Chebulic, 246
 BLACK COHOSH, 98
 BLACK CURRANT, 39
 Black Elder, 126
 BLACK HAW, 40
 BLACK HELLBORE, 167
 BLACK HORNHOUND, 175
 Black Indian Hemp, 68
 Black Larch, 342
 Black Mulberry, 243
 Black Pepper, 267
 Black Ray Thistle, 196
 BLACK ROOT, 42
 Black Samson, 125
 Black Sassafras, 253
 Black Snakeroot, 69
 BLACK WILLOW, AMERICAN, 373
 Blackeye Root, 67

- Bladder Fucus, 42
 BLADDERWRACK, 42
 Blanket Herb, 243
 Blazing Star, 356
 Blessed Thistle, 172
 BLOOD ROOR, 43
 Bloodwort, 364
 Bluebottle, 107
 Bluebow, 107
 BLUE COHOSH, 99
 BLUE FLAG, 44
 Blue Galls, 146
 Blue Gum Tree, 131
 BLUE MALLOW, 44
 Bluet, 107
 Blue Violet, 359
 Blueweed, 55
 Bogbean, 52
 Bog Myrtle, 146
Boldea fragrans, 45
 BOLDO, 45
 Boldu, 45
Boletus laricis, 6
 BOLIVIAN COCA, 95
 BONESET, 45
Bonplandia trifoliata, 14
 BORAGE, 46
Borago officinalis, 46
 Boschori-Busch, 59
 Bottlebrush, 179
 Bouncing Bet, 324
 BOX LEAVES, 46
 BOXWOOD, AMERICAN, 47
 Brake Root, 278
 Bramble, 39
 Brandy Mint, 268
Brassica alba, 244
Brassica nigra, 244
Brassica sinapioides, 244
Brayera anthelmintica, 199
 Brazil Powder, 152
 Brazil Tea, 260
 Brazil Wood, 218
 Brazilian Arrowroot, 345
 Brazilian Cocoa, 162
 BREAD, JOHN'S, 193
 Bread, St. John's, 193
 Breakstone, Parsley, 262
 Bridewort, 233
 Brier, Wild, 122
 Broad-leaved Tea Tree, 63
 BROOKLIME, 47
 BROOM, 48
 BROOM, BUTCHER'S, 60
 Broom, Dyer's, 125
 Broom, Irish, 48
 Broom, Sweet, 60
 BROOM-CORN, 48
 Broomtops, 48
 Brownwort, 364
Brunfelsia Hopeana, 224
 Bryonia, 50
Bryonia alba, 50
Bryonia dioica, 50
 BRYONY, BLACK, 50
 BRYONY, WHITE, 50
 BUCHU, 51
 BUCKBEAN, 52
 BUCKTHORN, 52
 BUCKTHORN, ALDER, 54
Buda rubra, 17
 BUGLE, 54
 Bugle, Common, 54
 Bugle, Sweet, 55
 Bugle, Water, 55
 BUGLEWEED, 55
 BUGLOSS, 55
 Bugloss, Dyer's, 8
 Bugloss, Spanish, 8
 Bugloss, Viper's, 55
Bugula, 54
 Bullnettle, 178
 BURDOCK, 56
 Burnet, Garden, 58

- BURNET, GREATER, 58
 Burnet, Lesser, 58
 Burnet, Salad, 58
 BURNET SAXIFRAGE, 58
 Burning Bush, 362
 Burr, Thorny, 56
 BURRA GOKEROO, 58
 Burrage, 46
 BURR MARIGOLD, 59
 Burweed, 92
 BUSH TEA, 59
 Bush, Burning, 362
 Bush, Castor Oil, 75
 Bush, Hulver, 172
 BUTCHER'S BROOM, 60
 Butcher's Broom, Common, 60
 Butter and Eggs, 347
 BUTTERBUR, 60
 Butterbur, Common, 60
 Buttersly Weed, 276
 BUTTERNUT, 61
 BUTTON SNAKEROOT, 61
 Buttons, Quaker, 250
Buxus sempervirens, 46

 Caarohi, 71
 Cabbage, Meadow, 320
 Cabbage Rose, 297
 CABBAGE, SKUNK, 320
 CABBAGE TREE, 62
 Cabbage Tree, Jamaica, 62
 Cabbage Tree, Yellow, 62
 Cabbage, Water, 368
 CACAO, 62
Cactus grandiflorus, 248
 Cactus, Sweet-scented, 248
 Caffea, 97
 Cajuput, 63
 CAJUPUT, 63
 Cale Saffron, 302
 CATAPAW HEM, 63
 CALAMINT, 61
 Calamint, Common, 64
Calamintha menthifolia, 64
Calamintha officinalis, 64
 CALAMUS, 64
Calamus aromaticus, 64
 Calendula, 227
Calendula officinalis, 227
 California Feverbush, 136
 CALOTROPIS, 66
Calotropis Gigantea, 66
Calotropis procera, 66
Caltha officinalis, 227
 CALUMBA, 66
 Camboge, 147
Camellia sinensis, 345
Camellia theifera, 345
 CAMPHOR, 67
 Camphor, Gum, 67
 Camphor, Laurel, 67
Camphora officinarum, 67
 Canada Fleabane, 140
 Canadian Snakeroot, 151
 CANADIAN HEMP, 68
 Canadian Moonseed, 385
 CANCHALAGUA, 69
 Candleberry, 28
 CANELLA, 69
Canella alba, 69
Cannabis Indica, 184
Cannabis sativa, 184
 Cape Aloe, 10
 Capivi, 105
 Capivi Balsam, 105
Capsella Bursa-pastoris, 319
Capsicum fastigiatum, 77
Capsicum minimum, 77
 Carafahra, 186
 CARAWAY, 70
 Caraway Fruit, 70
 Caraway Seed, 70
Carlina leucodicta, 172
 Cardamom Seeds, Myrror, 71

- CARDAMOMS, 70
 Cardamoms, Malabar, 70
Carduus benedictus, 172
Carica Papaya, 258
 Carob Tree, 71
 CAROBA, 71
 Carolina Pink, 273
 Carpenter's Square, 138
 Carrageen, 186
 Carragheen, 186
 CARROT, WILD, 369
Carthamus tinctorius, 301
Carum Carvi, 70
Carum petroselinum, 261
 Casca Bark, 309
 CASCARA AMARGA, 71
 CASCARA SAGRADA, 72
 CASCARILLA, 73
 CASHEW NUT, 73
 Casia Bark, 74
 Cassava Starch, 345
 CASSIA, 74
Cassia acutifolia, 316
Cassia angustifolia, 316
 Cassia Bark, 74
Cassia Fistula, 74
 Cassia lignea, 74
 CASSIA PODS, 74
Cassuvium pomiferum, 73
Castanea dentata, 86
Castanea vesca, 86
Castanea vulgaris, 86
 Castor Oil Bush, 75
 CASTOR OIL PLANT, 75
 CATECHU, BLACK, 75
 Catechu, Nigrum, 75
 CATECHU, PALE, 76
 Catmint, 76
 CATNEP, 76
 Cat's-Eye, 328
 Catsfoot, 207
 Catshair, 133
Caulophyllum thalictroides, 99
 Caustic Barley, 300
 CAYENNE, 77
Ceanothus Americanus, 293
 Cedar, False White, 346
 Cedar, Yellow, 346
 CEDRON, 78
 Cedron Seeds, 78
 CELANDINE, 80
 Celandine, Garden, 80
 Celandine, Greater, 80
 Celandine, Lesser, 271
 Celandine, Small, 271
Celastrus scandens, 38
 CELERY, 80
Centaurea Cyanus, 107
Centaurea nigra, 196
 CENTAURY, 81
 Centory, 81
 Century, 81
Cephaelis Ipecacuanha, 185
Cerasus serotina, 369
Cerantonia siliqua, 193
Cereus grandiflorus, 248
 CEREUS, NIGHT-BLOOMING, 248
 Cetraria, 183
Cetraria islandica, 183
 Cevadilla, 300
Chamaelirium Carolinianum, 354
Chamaelirium luteum, 354
 CHAMOMILE, 81
 Chamomile, Dog, 232
 Chamomile, Double, 81
 CHAMOMILE, GERMAN, 82
 Chamomile, Roman, 81
 Chamomile, Single, 82
 Chamomile, Spanish, 265
 Chamomile, Wild, 232
 Chasse fièvre, 150
 Chaulmogra, 84
 CHAULMOOGRA, 84
 Chaulmugra, 84

- Charica Belle*, 33
Chebulic, Black, 246
Checkerberry, 329
Cheese Rennet, 201
Chekan, 85
CHEKEN, 85
Chelidonium majus, 80
Chelone glabra, 26
Chenopodium ambrosioides, 379
Chenopodium anthelminticum, 379
Chenopodium elidum, 18
Chequen, 85
CHERRY LAURFL, 85
CHERRY STALKS, 85
CHERRY, WILD, 369
CHERRY, WINTER, 375
Chervil, Sweet, 88
CHESNUT, 86
CHESNUT, HORSE, 175
Chicken Toe, 114
CHICKWEED, 86
Chickweed, Star, 86
CHICORY, 87
Chillies, 77
Chimaphila umbellata, 275
CHINA, 87
China Orange, 256
CHINA RHUBARB, 295
Chinese Anise, 331
Chinese Cinnamon, 74
Chinese Samach, 351
Chinese Tang kuei, 214
Chionanthus Virginica, 142
Chirata, Brown, 88
Chirayta, 88
CHIRETTA, 88
Chiretta Green, 88
Chiretta White, 88
Chiretta Bark, 72
Chiridate Tree, 62
Chondrus, 166
Chondrus crispus, 186
Chopnut, 63
Christmas Rose, 167
Chondrodendron tomentosum, 260
Chrysanthemum cinerariaefolium, 287
Chrysanthemum Leucanthemum, 258
Chrysanthemum Parthenium, 137
Chrysarobin, 152
Cicely, Smoother, 88
CICELY, SWEET, 88
Cichorium Intybus, 87
Cimicifuga racemosa, 98
CINCHONA BARK, 89
Cinchona Calisaya, 89
Cinchona lancifolia, 90
Cinchona Ledgeriana, 89
Cinchona officinalis, 89
Cinchona succubra, 89
CINERARIA MARITIMA, 90
Cinnamomum Camphora, 67
Cinnamomum Cassia, 74
Cinnamomum Laureis, 91
Cinnamomum Oliveri, 253
Cinnamomum Zeylanicum, 91
CINNAMON, 91
Cinnamon Australian, 253
Cinnamon Chinese, 74
Cinnamon Saigon, 91
Cinnamon, West Indian Wild, 69
Cinnamon, White, 69
Cinnamon, Winter's, 374
Cinquefoil, 135
Citrus Astringens, 188
Citrus aurantium, 188
Citrus Canadensis, 144
Citrus Californica, 31
Citrus aurata, 210
Citrus aurantium, 210

- Citrus aurantium*, 254
Citrus Bigaradia, 254
Citrus dulcis, 256
Citrus Limetta, 210
Citrus Limonia, 206
Citrus Medica, 206, 210
Citrus sinensis, 256
Gladonia pyxidata, 117
 Clarry, 92
 CLARY, 92
 Clavos, 94
Claviceps purpurea, 129
 Cleareye, 92
 Cleavers, 92
 CLIVERS, 92
 Clover, King's, 234
 Clover, Purple, 293
 CLOVER, RED, 293
 Clover, Winter, 329
 CLOVES, 94
 CLOWNSWORT, 94, 382
 Clown's Woundwort, 382
 CLUBMOSS, 95
Cnicus benedictus, 172
 COCA, BOLIVIAN, 95
 COCA, PERUVIAN, 95
 COCCULUS INDICUS, 96
Cocculus palmatus, 66
Cochlearia Armoracia, 178
Cochlearia officinalis, 314
 COCILLANA BARK, 97
 Cockscorn, Red, 13
 Cocoa, 62
 Cocoa, Brazilian, 162
Coffea arabica, 97
 COFFEE, 97
 COHOSH, BLACK, 98
 COHOSH, BLUE, 99
 Cola, 198
Cola Vera, 198
 COLICUM, 99
Colchicum autumnale, 99
 Colewort, 22
 Colic Root, 372
Collinsonia canadensis, 334
 Colocynth Pulp, 36
 Colombo, 66
 COLOPHONY RESIN, 100
 COLTSFOOT, 102
 Coltstail, 140
 COLUMBO, AMERICAN, 102
 COMBRETUM, 103
Combretum Sundaicum, 103
 COMFREY, 103
Commiphora Myrrha, 246
 Common Alder, 341
 Common Ash, 21
 Common Crosswort, 114
 Common Ivy, 187
 Common Wood-Sorrel, 379
 Compass Plant, 299
 Compass Weed, 299
Comptonia asplenifolia, 232
Comptonia peregrina, 232
 CONDURANGO, 104
 Coneflower, 125
 Conium, 168
Conium maculatum, 168
 Consolida, 103
 CONTRAYERVA, 104
 Convallaria, 209
Convallaria majalis, 209
Convolvulus Jalapa, 190
Convolvulus Purga, 190
Convolvulus Scammonia, 312
 COOLWORT, 105
 COPAIBA, 105
Copasfera Langsdorffii, 105
 Copaiua, 105
 Copaiua, Balsam, 105
 COPAL RESIN, 106
Coptis trifolia, 156
Corallorhiza odontorhiza, 114
 Coral Root, 114

- Dæmonorops propinquus*, 124
 Dagga, 184
 Daisy, Field, 258
 Daisy, Maudlin, 258
 Daisy, Moon, 258
 DAISY, OX-EYE, 258
 Daisy, White, 258
 DALMATIAN PYRETHRUM, 287
 DAMIANA, 118
 Damson, Mountain, 320
 DANDELION, 120
 Danewort, 124
Daphne Gnidium, 238
Daphne Laureola, 238
Daphne Mezereum, 236
Datura Stramonium, 336
Daucus Carota, 369
 Dawes Cotton, 116
 Deadnettle, White, 17
 Dead Tongue, 365
 Deadly Nightshade, 29
 Deerberry, 329
 DEER'S TONGUE, 120
Delphinium Consolida, 203
Delphinium Staphisagria, 332
 DEVIL'S BIT, 121
 Devil Tree, 12
 Dewplant, 340
Dicentra canadensis, 352
Dicentra cucullaria, 352
Digitalis purpurea, 141
 DILL, 121
 Dill Fruit, 121
 Dill Seed, 121
 Dioscorea, 372
Dioscorea villosa, 372
Diosma betulina, 51
Dipteryx odorata, 349
Dipteryx oppositifolia, 349
 Dita Bark, 12
 Ditch Stonecrop, 334
 Dock, Curled, 384
 Dock, Red, 364
 DOCK, WATER, 364
 DOCK, YELLOW, 384
 DODDER, 122
 Dodder, Lesser, 122
 Dodder of Thyme, 122
 Dog Chamomile, 232
 Dog Fennel, 232
 Dog Parsley, 141
 Dog Poison, 141
 DOG-ROSE, 122
 Dog Standard, 290
 Dog Tree, 47
 Dogshane, 37
 Dog's Grass, 110
 Dogstongue, 180
 Dog's Tooth Violet, 3
 Dogwood, American, 47
 DOGWOOD, JAMAICA, 190
 Dogwood, Swamp, 360
Dolichos pruriens, 112
 Dolloff, 233
Dorema Ammoniacum, 13
Dorstenia Brasilensis, 104
Dorstenia Contrayerva, 104
Dorstenia Drakena, 104
Dorstenia Houstoni, 104
Dorstenia opifera, 104
Dorstenia tubicina, 104
 Double Chamomile, 81
 Downy Woundwort, 382
Dracontium fatidum, 320
 Dragon Root, 362
 DRAGON'S BLOOD, 124
 Dragon's Claw, 114
Drimys Winteri, 374
 Dropwort, Hemlock, 365
 Dropwort, Hemlock Water, 365
 DROPWORT, WATER, 365
Drosera rotundifolia, 340
Dryopteris Felix-mas, 224
 Dulcamara, 38

- Eupatorium purpureum*, 157
 EUPHORBIA, 133
Euphorbia hirta, 133
Euphorbia pilulifera, 133
Euphorbia resinifera, 133
 EUPHORBIA, 133
Euphrasia officinalis, 134
 European Ash, 21
 EUROPEAN BIRCH, 35
 European Ground Pine, 159
 European Larch, 202
 European Willow, 373
 EVENING PRIMROSE, 134
Exogonium Purga, 190
 EYEBRIGHT, 134

Fabiana Imbricata, 270
Fagara Clava-Herculis, 283
 False Bittersweet, 38
 FALSE HELLEBORE, 168
 False Jacob's Ladder, 1
 False Saffron, 301
 FALSE UNICORN ROOT, 354
 False White Cedar, 346
 Featherfew, 137
 Featherfoil, 137
 Febrifuge, Australian, 11
 Felon Herb, 242
 Felonwood, 38
 Felonwort, 38
 Felwort, 149
 FENNEL, 136
 Fennel, Dog, 232
 Fennel, Rock, 303
 FENNEL, WATER, 365
 Ferngale, 232
 FERN, MALE, 224
 Fern, Male Shield, 224
 Fern, Meadow, 232
Ferula fetida, 20
Ferula galbaniflua, 145
Ferula suaveolens, 339

Ferula Sumbul, 339
 Fever Bark, 11
 FEVERBUSH, 136
 Feverbush, California, 136
 FEVERFEW, 137
 Feverwort, 81
Ficus Carica, 137
 Field Daisy, 258
 Field Gentian, 149
 Field Sorrel, 318
 FIG, 137
 FIGWORT, 138
 Fireweed, 290
 Fish Berries, 96
 Fivefinger, 138
 FIVE-LEAF-GRASS, 138
 FLAG, BLUE, 44
 Flag Lily, 44
 Flag, Poison, 44
 Flag, Sweet, 64
 Flag, Water, 44
 FLAG, YELLOW, 385
 Flake Manna, 226
 FLAX, MOUNTAIN, 240
 Flax, Purging, 240
 Flaxseed, 211
 Flaxweed, 347
 FLEABANE, 140
 Fleabane, Canada, 140
 Flea Seed, 285
 Fleawort Spogel, 285
 Fleur-de-Lye, 385
 Florentine Orris, 257
 Flores, Carthami, 301
 Flores Rhœados, 282
 Flour, Sago, 302
 Flower-de-luce, 385
 FLUELLIN, 140
 Fluellin Speedwell, 329
 Flux Herb, 386
 Fly Trap, 275
Foeniculum vulgare, 136



- Eupatorium purpureum*, 157
 EUPHORBIA, 133
Euphorbia hirta, 133
Euphorbia pilulifera, 133
Euphorbia resinifera, 133
 EUPHORBIA, 133
Euphrasia officinalis, 134
 European Ash, 21
 EUROPEAN BIRCH, 35
 European Ground Pine, 159
 European Larch, 202
 European Willow, 373
 EVENING PRIMROSE, 134
Exogonium Purga, 190
 EYEBRIGHT, 134

Fabiana Imbricata, 270
Fagara Clava-Herculis, 283
 False Bittersweet, 38
 FALSE HELLEBORE, 168
 False Jacob's Ladder, 1
 False Saffron, 301
 FALSE UNICORN ROOT, 354
 False White Cedar, 346
 Featherfew, 137
 Featherfoil, 137
 Febrifuge, Australian, 11
 Felon Herb, 242
 Felonwood, 38
 Felonwort, 38
 Felwort, 149
 FENNEL, 136
 Fennel, Dog, 232
 Fennel, Rock, 303
 FENNEL, WATER, 365
Ferngale, 232
 FERN, MALE, 224
 Fern, Male Shield, 224
 Fern, Meadow, 232
Ferula fetida, 20
Ferula galbaniflua, 145
Ferula suaveolens, 339

Ferula Sumbul, 339
 Fever Bark, 11
 FEBERBUSH, 136
 Feverbush, California, 136
 FEVERFEW, 137
 Feverwort, 81
Ficus Carica, 137
 Field Daisy, 258
 Field Gentian, 149
 Field Sorrel, 318
 FIG, 137
 FIGWORT, 138
 Fireweed, 290
 Fish Berries, 96
 Fivefinger, 138
 FIVE-LEAF-GRASS, 138
 FLAG, BLUE, 44
 Flag Lily, 44
 Flag, Poison, 44
 Flag, Sweet, 64
 Flag, Water, 44
 FLAG, YELLOW, 385
 Flake Manna, 226
 FLAX, MOUNTAIN, 240
 Flax, Purging, 240
 Flaxseed, 211
 Flaxweed, 347
 FLEABANE, 140
 Fleabane, Canada, 140
 Flea Seed, 285
 Fleawort Spogel, 285
 Fleur-de-Lye, 385
 Florentine Orris, 257
 Flores, Carthami, 301
 Flores Rhæados, 282
 Flour, Sago, 302
 Flower-de-luce, 385
 FLUELLIN, 140
 Fluellin Speedwell, 329
 Flux Herb, 386
 Fly Trap, 275
Foeniculum vulgare, 136



- Ginger, Indian, 151
 GINGER, WILD, 151
 GINSENG, 151
 Gipsywort, 55
 GLADWIN, 152
 Gladwine, 152
 Gladwyn, Stinking, 152
Glechoma hederacea, 158
 GLEDITSCHIA, 152
Gleditschia Ferox, 152
Gleditschia triacanthos, 152
Glycine Soja, 327
Glycyrrhiza glabra, 212
Gnaphalium citrinum, 131
Gnaphalium dioicum, 207
Gnaphalium Stoechas, 131
Gnaphalium uliginosum, 116
 GOA, 152
 GOAT'S RUE, 154
 GOKEROO, BURRA, 58
 Gokhru Barra, 58
 GOLD THREAD, 156
 Gold, Vegetable, 156
 GOLDEN ROD, 154
 GOLDEN SEAL, 155
 Golden Senecio, 208
 Goldens, 258
 Goldilocks, 131
Gonolobus, Condurango, 104
 Goosebill, 92
 Goosefoot, 18
 Goosegrass, 92
Gossypium herbaceum, 109
 Gouan, 26
 Goutweed, 156
 GOUTWORT, 156
 GRAINS OF PARADISE, 157
 GRAPE, MOUNTAIN, 240
 Grape, Oregon, 240
 Grass, Ripple, 276
Gratiola officinalis, 164
 Gravel Plant, 16
 GRAVEL ROOT, 157
 Gravelweed, 157
 Great Ox-Eye, 258
 Great Wild Valerian, 357
 GREATER BURNET, 58
 Greater Celandine, 80
 Greater Periwinkle, 268
 Greek Valerian, 189
 Greek Valerian, American, 1
 Greek Valerian, English, 189
 Green Hellebore, 166
 Greenheart Bark, 29
 Greenweed, 125
 GREENWEED, DYER'S, 125
 GRINDELIA, 158
Grindelia camporum, 158
 Grindelia, Hardy, 158
Grindelia robusta, 158
 Grindelia, Scaly, 158
 Groats, 252
 Ground Ash, 156
 Ground Holly, 275
 GROUND IVY, 158
 Ground Laurel, 16
 Ground Liverwort, 216
 Ground Moss, 163
 GROUND PINE, AMERICAN, 159
 GROUND PINE, EUROPEAN, 159
 GROUNDSEL, 160
 Grounsel, 160
 GUAIACUM, 160
Guaiacum officinale, 160
Guaiacum sanctum, 160
 Guapi Bark, 97
 GUARANA, 162
Guarea Rusbyi, 97
Guarea trichiloides, 97
 Guaza, 184
 Guelder Rose, 112
Guilandia Bonduie, 249
 Guimauve, 228
 Guinea Grains, 157

- Herb, Blanket, 243
 Herb, Felon, 242
 Herb, Fuller's, 324
 Herb-Gerarde, 156
 Herb Louisa, 212
 Herb of Grace, 299
 Herb, Queen-of-the-Meadow, 233
 Herbygrass, 299
Herniaria glabra, 300
Hibiscus Abielmoschus, 244
Hieracium Pilosella, 241
 High Cranberry, 112
 Hinojo, 136
 Hip Tree, 122
Hippocastanum vulgare, 175
 Hippo, Indian, 185
 Hoarhound, 174
 Hockle Elderberry, 96
 Hogbean, 169
 HOLLY, 172
 Holly, Ground, 275
 HOLLYHOCK, 172
 Hollyhock, Common, 172
 Hollyhock, Garden, 172
 Holly-leaved Berberry, 240
 Holm, 172
 HOLY THISTLE, 172
 HONEYSUCKLE, 173
 Honeysuckle, Dutch, 173
 HOPS, 174
 Hop Tree, 360
Hordeum distichon, 27
 HOREHOUND, 174
 HOREHOUND, BLACK, 175
 Horsebalm, 334
 HORSE CHESTNUT, 175
 Horsegowan, 258
 Horsehoof, 102
 HORSEMINT, 176
 Horsemint, American, 176
 HORSEMINT, ENGLISH, 178
 HORSENETTLE, 178
 HORSERADISH, 178
 HORSETAIL, 179
 Horseweed, 334
 HOUNDSTONGUE, 180
 HOUSELEEK, 180
 Houseleek, Common, 180
 Huckleberries, 34
 Hulm, 172
 Hulver Bush, 172
Humulus Lupulus, 174
 Hundred-leaved Rose, 297
 Hurtleberries, 34
 Hurtsickle, 107
Hydnocarpus Kurzii, 84
 HYDRANGEA, 180
Hydrangea arborescens, 180
 Hydrangea, Wild, 180
Hydrastis canadensis, 155
 HYDROCOTYLE, 182
Hydrocotyle Asiatica, 182
Hyoscyamus niger, 169
Hypericum perforatum, 331
 HYSSOP, 182
Hyssopus officinalis, 182
 Iceland Lichen, 183
 ICELAND MOSS, 183
Ignatia amara, 183
 IGNATIUS BEANS, 183
Ilex Aquifolium, 172
Ilex paraguensis, 260
Illicium verum, 331
Illicium religiosum, 332
Impatiens aurea, 192
Impatiens biflora, 192
Impatiens fulva, 192
Impatiens pallida, 192
Imperatoria Ostruthium, 230
 Indian Arrowroot, 362
 Indian Bael, 24
 Indian Berries, 96
 Indian Cup-plant, 118

- Justicia Adhatoda*, 222
Kalmia, 241
Kalmia latifolia, 241
 KAMALA, 194
 Kameela, 194
 Kava, 195
 KAVA-KAVA, 195
 Kelpware, 42
 Kidneywort, 214
 King's Clover, 234
 Kino, 196
 Kino Eucalyptus, 132
 Kino, Gum, 196
 KNAPWEED, 196
 Kneeholm, 60
 Kneeholy, 60
 Knight's Spur, 203
 Knitbone, 103
 Knob Root, 334
 Knob Weed, 334
 Knotgrass, English, 198
 KNOTGRASS, RUSSIAN, 198
 KOLA, 198
 Kola Nut, 198
 Kooso, 199
 Kosso, 199
 Kousoo, 199
Krameria argentea, 295
Krameria triandra, 295
 KUMARHOU, 199
 Kusso, 199
 LABRADOR TEA, 200
 LACHNANTHES, 200
Lachnanthes tinctoria, 200
 Lacmus, 213
Lactuca virosa, 207
 LADIES' BEDSTRAW, 201
 LADIES' MANTLE, 201
 LADIES' SLIPPER, 202
 Ladies' Slipper, Yellow, 202
 Lad's Love, 327
 Lady-of-the-meadow, 233
 Lambkill, 241
 Lamb's Quarter, 34
Lamium album, 17
 Lappa, 56
Lappa minor, 56
 LARCH, 202
 Larch Agaric, 6
 Larch, American, 342
 Larch, Black, 342
 Larch, European, 202
Larix Americana, 342
Larix europæa, 202
 LARKSPUR, 203
 Lark's Claw, 203
 Lark's Heel, 203
 LAUREL, 203
 Laurel Camphor, 67
 Laurel, Ground, 16
 LAUREL, MOUNTAIN, 241
 Laurel, Noble, 203
 Laurel, Roman, 203
 Laurel, Sheep, 241
 Laurel, Spurge, 236
Laurus Camphora, 67
Laurus nobilis, 203
Lavandula officinalis, 204
Lavandula vera, 204
 LAVENDER, 204
 LAVENDER COTTON, 204
Lawsonia alba, 170
 Leaf Cup, 29
 Leaf Cup, Yellow, 29
 Leaf Tobacco, 348
Ledum latifolium, 200
Ledum palustre, 200
 LEMON, 206
 Lemon Balm, 25
 Lemon-scented Verbena, 212
 Lemon, Wild, 225
 Lentisk, 231

- Leontice thalictroides*, 99
Leontodon Taraxacum, 120
Leonurus cardiaca, 237
Lepigonum rubrum, 17
Leptandra Virginica, 42
 Lesser Burnet, 58
 Lesser Celandine, 271
 Lesser Dodder, 122
 Lettuce-Opium, 207
 LETTUCE, WILD, 207
Leucanthemum vulgare, 258
 Levant Berries, 96
 LEVANT WORMSEED, 380
Levisticum officinale, 218
Liatris odoratissima, 120
Liatris spicata, 61
Lichen caninus, 216
 Lichen, Iceland, 183
 Licorice, 212
 LIFE EVERLASTING, 207
 LIFE ROOT, 208
Lignum rubrum, 304
Lignum sanctum, 160
Lignum Vitæ, 160
Ligusticum Levistum, 218
Ligusticum Scoticum, 219
Lilium candidum, 233
 Lily, Flag, 44
 Lily, Liver, 44
 Lily, Madonna, 233
 Lily, May, 209
 LILY, MEADOW, 233
 LILY-OF-THE-VALLEY, 209
 Lily, Snake, 44
 Lily, White, 233
 LIME FLOWERS, 209
 LIMEFRUIT, 210
 Limon, 206
Limonum, 206
Linaria vulgaris, 347
Linaria Elatine, 140
 Lindenflowers, 209
 Linnflowers, 209
 LINSEED, 211
Linum catharticum, 240
Linum usitatissimum, 211
 Lion's Foot, 201
 LIPPIA, 211
 LIPPIA CITRIODORA, 212
Lippia dulcis, 211
 Lippia, Mexican, 211
Lippia triphylla, 212
Liquidambar orientalis, 335
 Liquid Storax, 335
 Liquorice, Indian, 192
 LIQUORICE ROOT, 212
 Liquorice, Wild, 192
Liriosma ovata, 242
Lithospermum tinctorum, 8
 LITMUS, 213
 Liverleaf, 214
 Liver Lily, 44
 LIVERWORT, AMERICAN, 214
 LIVERWORT, ENGLISH, 216
 Liverwort, Ground, 216
 Liverwort, 216
 LOBELIA, 216
Lobelia inflata, 216
 LOGWOOD, 217
Lonicera Caprifolium, 173
 LOOSESTRIFE, 218
 Loosestrife, Yellow, 218
Lopophora Læwnis, 234
 Lords-and-Ladies, 116
 LOVAGE, 218
 Lovage, Water, 365
 Love-lies-bleeding, 13
 LUCERNE, 219
 Lungmoss, 220
 LUNGWORT, 220
Lycoperdon Bovista, 286
Lycoperdon giganteum, 286
 Lycopodium, 95
Lycopodium clavatum, 95

- Lycopodium complanatum*, 159
Lycopodium Seed, 95
Lycopus Virginicus, 55
Lysimachia vulgaris, 218

MACE, 220
 Mackerel Mint, 328
Macrolys actæoides, 98
Macuna pruriens, 112
MADDER, 221
 Madder, Dyers', 221
 Mad-Dog Weed, 366
 Madonna Lily, 233
 Madweed, 313
MAGNOLIA, 221
Magnolia acuminata, 221
Magnolia glauca, 221
Magnolia tripetata, 221
Magnolia Virginiana, 221
 Ma Huang, 129
MAIDENHAIR, 222
 Maid's Hair, 201
Majorana hortensis, 227
 Malabar Cardamoms, 70
MALABAR-NUT, 222
MALE FERN, 224
 Male Shield Fern, 224
 Mallards, 228
Mallotus Philippinensis, 194
MALLOW, BLUE, 44
 Mallow, Common, 44
Malva sylvestris, 44
 Mamæiro, 258
MANACA, 224
 Mancona Bark, 309
 Mandioc, 345
MANDRAKE, AMERICAN, 225
 Mandrake, English, 50
 Mandragora, 50
 Manhot, 345
Manihot utilisima, 345
 Man-mu, 218

MANNA, 226
 Manna, Flake, 226
MANTLE, LADIES', 201
MAPLE, RED, 226
 Maple, Swamp, 226
 Maranta, 20
Maranta arundinacea, 20
 Margosa, 24
 Marguerite, 258
MARIGOLD, 227
MARIGOLD, BURR, 59
 Marigold, Garden, 227
MARJORAM, SWEET, 227
MARJORAM, WILD, 228
Marrubium nigrum, 175
Marrubium vulgare, 174
Marsdenia Condurango, 104
MARSHMALLOW, 228
 Marsh Mint, 372
 Marsh Rosemary, 314
 Marsh Tea, 200
 Marsh Trefoil, 52
MARSH WOUNDWORT, 382
Maruta Cotula, 232
Maruta fetida, 232
 Marygold, 227
 Maryland Pink, 273
MASTERWORT, 230
MASTIC, 231
 Mastich, 231
 Maté, 260
 Maté, Yerba, 260
 Matica, 231
MATICO, 231
Matricaria Chamomilla, 82
Matricaria Pyrethrum, 265
 Maudlin Daisy, 258
 Mauls, 44
 Mawseed, 282
 May Apple, 225
 Mayflower, 16
 May Lily, 209

- Maypops, 262
 MAYWEED, 232
 Meadow Anemone, 286
 Meadow Cabbage, 320
 MEADOW FERN, 232
 MEADOW LILY, 233
 Meadow Saffron, 99
 MEADOWSWEET, 233
Medicago Sativa, 219
Melaleuca Cajuputi, 63
Melaleuca Leucadendron, 63
Melia Azadirachta, 24
 MELILOT, 234
Melilotus officinalis, 234
Melissa officinalis, 25
 Melon Tree, 258
Menispermum Canadense, 385
Mentha aquatica, 372
Mentha crispa, 328
Mentha piperita, 268
Mentha pulegium, 266
Mentha sativa, 372
Mentha spicata, 328
Mentha sylvestris, 178
Mentha viridis, 328
Menyanthes trifoliata, 52
 MESCAL BUTTONS, 234
Mespilus Aucuparia, 238
Metroxylon Rumphii, 302
 Mexican Lippia, 211
 Mexican Scammony, 311
 MEZEREON, 236
 Mulfoil, 382
 Mulweed, 37
 Mulweed, Swamp, 341
Miniscida, 70
 Mint, Balm, 268
 Mint, Brandy, 268
 Mint, Curled, 268
 Mint, Hairy, 372
 Mint, Mackerel, 328
 Mint, Marsh, 372
 Mint, Mountain, 64
 MINT, WILD, 372
 MISTLETOE, 236
 Mistletoe, Birdlime, 236
 Mistletoe, European, 236
Mitchella repens, 329
 Mitrewort, 105
Monarda punctata, 176
 Monkey Nuts, 16
 Monkshood, 2
 MONSONIA, 237
Monsonia ovata, 237
 Moon Daisy, 258
 Moonseed, 385
 Moonseed, Canadian, 385
 Moonseed, Sarsaparilla, 385
 Moose Elm, 321
Morus nigra, 243
 Mostaza, 244
 Mother of Thyme, 347
 Mother's Heart, 319
 MOTHERWORT, 237
 MOUNTAIN ASH, 238
 Mountain Balm, 386
 Mountain Damson, 320
 MOUNTAIN FLAX, 240
 MOUNTAIN GRAPE, 240
 MOUNTAIN LAUREL, 241
 Mountain Mint, 64
 Mountain Pink, 16
 MOUSEEAR, 241
 Mouth Root, 156
Mucuna pruriens, 112
 Mudar Bark, 66
 MUGWORT, 242
 MUIRA-PUAMA, 242
 MULBERRY, 243
 Mulberry, Black, 243
 MULLEIN, 243
 Muscal Buttons, 234
 Musk Root, 339
 MUSKSEED, 244

- MUSTARD, 244
 Myrica asplenifolia, 232
 Myrica cerifera, 28
 Myrica Gale, 146
 Myristica fragrans, 220, 249
 Myristica officinalis, 249
 MYROBALANS, 246
 Myroxylon Pertiræ, 270
 Myroxylon toluifera, 348
 MYRRH, 246
 Myrrhis odorata, 88
 MYRTLE, 247
 Myrtle, Bog, 146
 Myrtle, Dutch, 146
 Myrtus Cheken, 85
 Myrtus communis, 247
 Mysore Cardamom Seeds, 70

 Naked Ladies, 99
 Nanny, Stinking, 290
 Naranja, 254
 Nard, Wild, 21
 Natal Arrowroot, 20
 Nectandra, 109
 Nectandra Rodiæi, 29
 Neem, 24
 Nepeta, Cataria, 76
 Nepeta glechoma, 158
 Nerveroot, 202
 NETTLE, 247
 Nettle, Stinging, 247
 Nichol Seeds, 249
 Nicotiana acuminata, 348
 Nicotiana rustica, 348
 Nicotiana Tabacum, 348
 NIGHT-BLOOMING CEREUS, 248
 Nightshade, Deadly, 29
 Nightshade, Woody, 38
 NIKKAR NUTS, 249
 Nim, 24
 Nipbone, 103
 Noah's Ark, 202

 Noble Laurel, 203
 Nosebleed, 382
 NUT, ARECA, 17
 Nut, Betel, 17
 NUT, CASHEW, 73
 NUT, MALABAR, 222
 Nut, Poison, 250
 Nutgalls, 146
 NUTMEG, 249
 Nuts, Earth, 16
 Nuts, Monkey, 16
 Nuts, Pea, 16
 Nux Moschata, 249
 NUX VOMICA, 250
 Nymph, Water, 368
 Nymphaea odorata, 368

 OAK, 251
 Oak Lungs, 220
 OAK, POISON, 277
 OATS, 252
 Ocimum basilicum, 27
 Oenothera biennis, 134
 Oenanthe crocata, 365
 Oenanthe Phellandrium, 365
 Ofbit, 121
 Oilnut, 61
 Old Man, 327
 Old-man's-beard, 142
 Old Woman, 381
 Olea europæa, 252
 OLIVE, 252
 Olive, Spurge, 236
 OLIVER BARK, 253
 ONION, 254
 Onosis spinosa, 294
 Ophelia Chirata, 88
 Ophioglossum vulgatum, 4
 Opium Antidote, 103
 Opopanewort, 382
 Opuntia decumana, 249
 Orange, Bigarade, 254

- ORANGE, BITTER, 254
 Orangé, China, 256
 Orange, Portugal, 256
 Orange Root, 155
 Orange, Seville, 254
 ORANGE, SWEET, 256
 Orchanet, 8
Orchis latifolia, 303
Orchis maculata, 303
Orchis mascula, 303
 Ordeal Bean, 63
 Oregon Grape, 240
 Orellana, 15
Origanum majorana, 227
Origanum vulgare, 228
 Orleans, 15
 Orizaba Jalap, 311
 ORRIS, 257
 Orris, Florentine, 257
 Orris Root, 257
Oryza sativa, 297
 OSIER, RED, AMERICAN, 257
 Osier, Red, English, 257
Ouroparia Gambir, 76
Oxalis Acetosella, 379
 Ox-EYE DAISY, 258
 Ox-Eye, Great, 258

 Prænia, 266
Prænia officinalis, 266
 Pailles, 112
 Paint Root, 200
 PALE CATECHU, 76
 PALE ROSE, 297
 Pale Touch-me-not, 192
 Palembang Benzoin, 32
 Palma, Christi, 75
 Panama Bark, 323
Panax quinquefolium, 151
 Panay, 382
Paninistalia yelawia, 397
 Pansy, Wild, 164

Papaver Rhæas, 282
Papaver somniferum, 282
 PAPAWE, 258
Papaya vulgaris, 258
 Paprika, Hungarian, 78
 Papoose Root, 99
 Paracoto, 109
 PARAGUAY TEA, 260
 PAREIRA, 260
Pareira brava, 260
Parietaria officinalis, 265
 PARILLA, YELLOW, 385
 PARSLEY, 261
 Parsley Breakstone, 262
 Parsley, Dog, 141
 PARSLEY PIENT, 262
 Parsley, Poison, 168
 Partridgeberry, 329
 Pasque Flower, 286
 Passe Flower, 286
Passiflora incarnata, 262
 PASSION FLOWER, 262
 PATCHOULI, 262
Paulinia Cupana, 162
Paulinia sorbilis, 162
 Pawpaw, 258
 PAWPAW SEED, 259
 Pea Nuts, 16
 Pea, Turkey, 352
 PEACH, 264
 Peamint, 328
 Pearl Barley, 27
 Pearl Sago, 302
Pedaliium Murex, 58
 PELLITORY, 265
 PELLITORY-OF-THE-WALL, 265
 Pellitory Root, 265
 Pellitory, Spanish, 265
 Pellote, 234
Pelt-grea tanina, 216
 Pennsylvania Sumach, 339
 PENNYROYAL, 268

- Pennyroyal, European, 266
 Pennywort, 347
 Penthorum, 334
Penthorum sedoides, 334
 PEONY, 266
 Peony, Common, 266
 PEPPER, 267
 Pepper, African, 77
 Pepper, Ava, 195
 Pepper, Bird, 77
 Pepper, Black, 267
 Pepper, Guinea, 77
 Pepper, Jamaica, 9
 Pepper, Water, 322
 PEPPERMINT, 268
 Pepperwort, 322
 PERIWINKLE, 268
 Periwinkle, Greater, 268
 Perlatum, 27
 Persian Gum Ammoniacum, 13
 Persicaria, Biting, 322
Persica vulgaris, 264
 Persio, 213
 PERUVIAN BALSAM, 270
 Peruvian Bark, 89
 PERUVIAN COCA, 95
 PERUVIAN RHATANY, 295
Petasites vulgaris, 60
 Petit Chêne, 150
Petroselinum sativum, 261
 Pettigree, 60
 Pettymorrel, 329
Peucedanum graveolens, 121
Peumus Boldus, 45
 Pewterwort, 179
 Pheasant's Eye, 168
Phellandrium aquaticum, 365
Phoradendron flavescens, 237
Phyllitis Scolopendrium, 163
Physalis Alkekengi, 375
 Physic, Culver's, 42
 PHYSIC, INDIAN, 185
 Physic Root, 42
Physostigma venenosum, 63
Phytolacca decandra, 277
 PICHU, 270
Picræna excelsa, 288
Picramnia Antidesma, 71
 Pigeon Berry, 277
 PILEWORT, 271
Pilocarpus Microphyllus, 188
 Pilosella, 241
Pimenta officinalis, 9
 Pimento, 9
 Pimpernel, Red, 272
 PIMPERNEL, SCARLET, 272
 Pimpernel, Water, 47
Pimpinella Anisum, 15
Pimpinella Saxifraga, 58
 Pin Heads, 82
 PINE, GROUND, AMERICAN, 159
 PINE, GROUND, EUROPEAN, 159
 Pine Oil, Pumilio, 272
 Pine Oil, Siberian, 272
 Pine Oil, Sylvestris, 272
 PINE OILS, 272
 Pine, Prince's, 275
 PINE, WHITE, 273
 Piney, 266
 Pink, Carolina, 273
 Pink, Indian, 273
 Pink, Maryland, 273
 Pink, Mountain, 16
 PINKROOT, 273
 Pink, Winter, 16
 PINUS BARK, 274
Pinus canadensis, 274
Pinus Larix, 202
Pinus Maritima, 353
Pinus palustris, 100, 353
Pinus pendula, 342
Pinus pumilio, 272
Pinus Strobis, 273
Pinus sylvestris, 332

- Pinus taeda*, 100
Piper angustifolium, 231
Piper Betel, 33
Piper Cubeba, 115
Piper Methysticum, 195
Piper nigrum, 267
 Piperidge-Bush, 26
 PIRSISSIWA, 275
Piscidia Erythrina, 190
Pistacia Lentiscus, 231
 PITCHER PLANT, 275
Pix Liquida, 332
Plantago Arenaria, 285
Plantago major, 276
Plantago ovata, 285
Plantago Payllium, 285
 PLANTAIN, 276
 PLANTAIN, WATER, 366
 PLEURISY ROOT, 276
 Plum Tree, 284
Podalyria tinctoria, 370
Podophyllum peltatum, 225
Pogostemon Patchouli, 262
 Poison, Dog, 141
 Poison Flag, 44
 Poison Hemlock, 168
 Poison Ivy, 277
 Poison Nut, 250
 POISON OAK, 277
 Poison Parsley, 168
 Poison Vine, 277
 Poke, Indian, 166
 POKK ROOT, 277
 Polar Plant, 299
 Polecatweed, 320
Polemonium coeruleum, 169
Polemonium reptans, 1
Polygala Senega, 315
Polygonatum multiflorum, 326
Polygonum articulare, 198
Polygonum bistorta, 36
Polygonum erectum, 198
Polygonum Hydropiper, 322
Polymnia Uredalia, 29
Polypodium vulgare, 278
 Polypodi of the Oak, 278
 Polypody, Rock, 278
 POLYPODY ROOT, 278
Polytrichum Juniperinum, 163
Pomaderris Elliptica, 199
 POMEGRANATE, 279
 POND LILY, WHITE, 368
 Pool Root, 306
 Poor Man's Weatherglass, 272
 POPLAR, 280
 Poplar, White, 280
 POPPY, 282
 Poppy, Corn, 282
 POPPY, RED, 282
Populus candicans, 25
Populus tremuloides, 280
 Portugal Orange, 256
Potentilla anserina, 319
Potentilla reptans, 138
Potentilla Tormentilla, 350
 Prepared Storax, 335
 PRICKLY ASH, 283
 Prideweed, 140
 PRIMROSE, 284
 PRIMROSE, EVENING, 134
 Primrose, Tree, 134
Primula veris, 112
Primula vulgaris, 284
 Prince's Pine, 275
Prinos verticillatus, 8
 Provence Rose, 299
 PRUNF, 284
 Prune Tree, 284
 Prune, Virginian, 369
Prunella vulgaris, 315
Prunus arbutum, 85
Prunus communis, 9
Prunus domestica, 284
Prunus Laurocerasus, 85

- Prunus Persica*, 264
Prunus serotina, 369
Psychotria Ipecacuanha, 185
 PSYLLIUM, 285
Ptelea, 360
Ptelea trifoliata, 360
Pterocarpus Marsupium, 196
Pterocarpus santalinus, 304
 PUFF BALL, 286
 Pukeweed, 216
Pulmonaria officinalis, 220
 Pulp, Colocynth, 36
 Pulp, Tamarind, 342
 PULSATILLA, 286
 Pumilio Pine Oil, 272
 PUMPKIN, 287
 Pumpkin Seed, 287
Punica Granatum, 279
 Purging Agaric, 6
 Purging Flax, 240
 Purple Clover, 293
 Purple Foxglove, 141
 Purple Medick, 219
 Pussy Willow, 373
 PYRETHRUM, DALMATIAN, 287
Pyrethrum Parthenium, 137
Pyrus Aucuparia, 238
Pyrus Cydonia, 290

 Quaker Buttons, 250
 Quaking Aspen, 280
 QUASSIA, 288
Quassia amara, 288
 QUEBRACHO, 289
 Queen-of-the-meadow Herb, 233
 Queen-of-the-meadow Root, 157
 QUEEN'S DELIGHT, 289
 Queen's Root, 289
 • *Quercus infectoria*, 146
Quercus robur, 251
Quercus sessiliflora, 251
 Quickgrass, 110

Quillaja, 323
Quillaja Saponaria, 323
 QUINCE, 290
 Quince, Bengal, 24
 Quince, Seed, 290
 Quinine, Australian, 11

 Racoonberry, 225
Radix caryophyllata, 22
 Ragged Cup, 118
 Ragweed, 290
 RAGWORT, 290
 Ramp, 116
Ranunculus Ficaria, 271
 RASPBERRY, 292
 Raspberry, American, 292
 Rattleroot, 98
 Rattleweed, 98
 Red Alder, 341
 RED CLOVER, 293
 Red Cockscomb, 13
 Red Dock, 364
 Red Elm, 321
 Red Gum, 132
 RED MAPLE, 226
 RED OSIER, AMERICAN, 257
 Red Osier, English, 257
 Red Pimpernel, 272
 RED POPPY, 282
 Red River Snakeroot, 322
 RED ROOT, 200, 293
 RED ROSE, 298
 Red Rot, 340
 RED SAGE, 294
 Red Sandalwood, 304
 RED SANDERS WOOD, 304
 Red Willow, 257
 RESIN COLOPHONY, 100
 REST HARROW, 294
Rhamnus catharticus, 52
Rhamnus Frangula, 54
Rhamnus Purshiana, 72

- Rhatanha, 295
 RHATANY, PERUVIAN, 293
Rheum officinale, 296
Rheum palmatum, 295
Rheum raphaniticum, 296
 Rheumatism Root, 372
 RHUBARB, CHINA, 295
 RHUBARB, EAST INDIAN, 295
 RHUBARB, ENGLISH, 296
 RHUBARB, TURKEY, 295
Rhus aromatica, 338
Rhus glabra, 338
Rhus Toxicodendron, 277
Ribes nigrum, 39
 Rice, 297
 Rich Leaf, 334
 Rich Weed, 334
Ricinus communis, 75
 Ringworm Powder, 152
 Ripple Grass, 276
 Robinsrye, 163
Rocella Montagnei, 213
Rocella tinctoria, 213
 Rockbrake, 278
 Rock Fennel, 303
 Rock Polypody, 278
 Rock Rose, 144
 Roman Chamomile, 81
 Roman Laurel, 203
 Romero, 298
 Roosbosch, South African, 59
Rosa canina, 122
Rosa centifolia, 297
Rosa damascena, 298
Rosa gallica, 298
 Rose, Cabbage, 297
 Rose, Christmas, 167
 Rose-coloured Silkweed, 311
 Rose, Corn, 282
 Rose Flowers, 298
 Rose, Guelder, 112
 Rose, Hundred-leaved, 297
 ROSE, PALE, 297
 ROSE, RED, 298
 Rose, Rock, 144
 Rose Willow, 257
 ROSEMARY, 298
 Rosemary, Marsh, 314
 Rosemary, Wild, 200
 Rosenoble, 138
 Rosin, 100
 ROSINWEED, 299
Rosmarinus officinalis, 298
Rottlera tinctoria, 194
 Roundleaved Sundew, 340
 Rowan Tree, 238
Rubia tinctorum, 221
Rubus Canadensis, 39
Rubus fruticosus, 39
Rubus Idæus, 292
Rubus strigosus, 292
Rubus trivialis, 39
Rubus villosus, 39
 Rubywood, 304
 RUE, 299
 RUE, GOAT'S, 154
 Rue, Garden, 299
Rumex acetosa, 326
Rumex Acetosella, 318
Rumex aquaticus, 364
Rumex crispus, 384
 RUPTUREWORT, 300
Ruscus aculeatus, 60
 RUSSIAN KNOTGRASS, 198
Rusticum Vulna Herba, 382
Ruta gratiolens, 299
 Rye, Spurred, 129
 SAMPANILLA, 300
 Sabal, 311
 Salbine rouge, 17
 Sacred Bark, 72
 Saddleplant, 275
 SAFFLOWER, 301

- SAFFRON**, 301
Saffron, Alicante, 301
Saffron, American, 301
Saffron, Bastard, 301
Saffron, Dyer's, 301
Saffron, False, 301
Saffron, Gatinais, 301
Saffron, Hay, 301
Saffron, Meadow, 99
Saffron, Valencia, 301
Sage, Garden, 294
Sage, Garlic, 379
Sage, Indian, 45
SAGE, RED, 294
SAGE, WOOD, 379
SAGO, 302
Sago Flour, 302
Sago Meal, 302
Sago, Pearl, 302
Sagus genuina, 302
Sagus Rumphii, 302
Saint Ignatius Beans, 183
Salad Burnet, 58
SALEP, 303
Salep Root, 303
Salix alba, 373
Salix discolor, 373
Salix nigra, 373
Salix nigricans, 373
Salix rubra, 257
Salvia officinalis, 294
Salvia sclarea, 92
Sambucus Ebulus, 124
Sambucus nigra, 126
SAMPHIRE, 303
Sampson, Black, 125
SANDALWOOD, 303
Sandalwood, Red, 304
Sandbrier, 178
SANDERS WOOD, RED, 304
Sandwort, 17
Sanguinaria Canadensis, 43
Sanguisorba officinalis, 58
SANICLE, 306
Sanicula Europæa, 306
Santalum album, 303
Santalum rubrum, 304
Santalwood, 303
Santolina Chamæcyparissias, 204
Santonica, 380
Saponaria officinalis, 324
Sappan, 218
Sarracenia purpurea, 275
SARSAPARILLA, AMERICAN, 306
Sarsaparilla, Country, 307
SARSAPARILLA, INDIAN, 307
SARSAPARILLA, JAMAICA, 307
Sarsaparilla, Moonseed, 385
SASSAFRAS, 308
Sassafras, Black, 253
Sassafras officinale, 308
Sassafras varifolium, 308
SASSY BARK, 309
Satureia hortensis, 310
SAVIN, 310
Savine tops, 310
Savory, Garden, 310
SAVORY, SUMMER, 310
SAW PALMETTO, 311
Saxifrage, 58
SAXIFRAGE, BURNET, 58
Scabiosa succisa, 121
Scabwort, 126
Scaly Grindalia, 158
Scammonium, 312
SCAMMONY ROOT, MEXICAN, 311
Scarlet Berry, 38
SCARLET PIMPERNEL, 272
Schloss Tea, 228
Schoenocaulon officinale, 300
Scilla maritima, 330
Scolopendrium vulgare, 163
Scopola carnioica, 312
SCOPOLIA, 312

- Scopolia atropoides*, 312
Scrophularia aquatica, 364
Scrophularia nodosa, 138
 SCULLCAP, 313
 Scullcap, European, 313
 Scullcap, Western, 313
 SCURVYGRASS, 314
Scutellaria galericulata, 313
Scutellaria integrifolia, 313
Scutellaria lateriflora, 313
 Seaholly, 130
 SEA-LAVENDER, AMERICAN, 314
 Sea-Lavender, English, 314
 Seaweed, 42
 Seawrack, 42
Secale cornutum, 129
 Seeds, Mysore Cardamom, 70
 SELF-HEAL, 315
 Semen Cinxæ, 380
 Semen contra, 380
 Semen sanctum, 380
 Semen Santonici, 380
Sempervivum tectorum, 180
 Senecio, Golden, 208
Senecio aureus, 208
Senecio Jacobæa, 290
Senecio maritimus, 90
Senecio vulgaris, 160
 SENEGA, 315
 Senega Snakeroot, 315
 Seneka, 315
 Sengreen, 180
 SENNA, 316
 Senna, Alexandrian, 316
 Senna, East Indian, 316
 Senna, Tinnevelly, 316
 Septfoil, 350
Serenoa serrulata, 311
 Serpent's Tongue, 3
 Serpyllum, 347
 Sesam, 30
 Sesame, 30
Sesamum indicum, 30
 Seven Barks, 180
 Seville Orange, 254
 SHALLOT, 318
 Shavegrass, 179
 She-Broom, 48
 Sheep Laurel, 241
 SHEEP-SORREL, 318
 Shepherd's Barometer, 272
 SHEPHERD'S-PURSE, 319
 Shepherd's Sprout, 319
 Shield Fern, Male, 224
 Shrubby Trefoil, 360
 Siam Benzoin, 33
 Siberian Pine Oil, 272
 SIEGESBECKIA, 319
Siegesbeckia orientalis, 319
 Silkweed, Rose-coloured, 341
 Silkweed, Swamp, 341
 Silky Cornel, 257
Silphium laciniatum, 299
Silphium perfoliatum, 118
 SILVERWEED, 319
Simaba Cedron, 78
 SIMARUBA, 320
Simaruba amara, 320
Sinapis alba, 244
Sinapis nigra, 244
 Single Chamomile, 82
Sisymbrium officinale, 166
 Skullcap, 313
 Skunkbush, 136
 SKUNK-CABBAGE, 320
 Skunkweed, 320
 SLIPPER, LADIES', 202
 Slipper, Yellow Ladies', 202
 SLIFFERY ELM, 321
 Sloe, American, 40
 Smallage, 80
 Small Celandine, 271
 SMARTWEED, 322
Smilax China, 87

- Smilax medica*, 307
Smilax officinalis, 307
Smilax ornata, 307
 Smooth Alder, 341
 SMOOTH SUMACH, 338
 Smoother Ciceley, 88
 Smut of Rye, 129
 Snake Head, 26
 Snake Lily, 44
 SNAKE ROOT, 322
 Snakeroot, Black, 98
 SNAKEROOT, BUTTON, 61
 Snakeroot, Canadian, 151
 Snakeroot, Red River, 322
 Snakeroot, Texan, 322
 Snakeroot, Virginian, 323
 Snakeweed, 36
 Snakewood, West Indian, 71
 Snowball Tree, 112
 Snowdrop Tree, 142
 Snowdrop, Yellow, 3
 Soap Bark, 323
 Soaproot, 324
 SOAP TREE, 323
 SOAPWORT, 324
 SOAPWORT ROOT, EGYPTIAN, 324
 Socotrine Aloes, 10
 Soja, 327
Solanum Carolinense, 178
Solanum dulcamara, 38
Solanum insidiosum, 194
Solidago Virgaurea, 154
 SOLOMON'S SEAL, 326
Sophora tinctoria, 370
Sorbus Aucuparia, 238
Sorghum saccharatum, 48
Sorghum vulgare, 48
 Sorghum Seeds, 48
 SORREL, 326
 SOUTHERNWOOD, 327
 South African Rooibosch, 59
 Soy Beans, 327
 SOYA BEANS, 327
 Spanish Bugloss, 8
 Spanish Chamomile, 265
 Spanish Pellitory, 265
Spartium scoparium, 48
 SPEARMINT, 328
 Speckled Jewels, 192
 SPEEDWELL, 328
Spergularia rubra, 17
Spigelia marilandica, 273
 Spignet, 329
 SPIKENARD, AMERICAN, 329
 Spikenard, Indian, 329
 Spindle Tree, 362
Spiraea stipulata, 185
Spiraea trifoliata, 185
Spiraea Ulmaria, 233
 Spiritweed, 200
 Spleenwort, 232
 Spogel Fleawort, 285
 Spoonwood, 194, 241
 Spoonwort, 314
 Spotted Alder, 376
 Spotted Hemlock, 168
 Spotted Touch-me-not, 192
 Sprout, Shepherd's 319
 Spruce, Hemlock, 274
 Spurge Laurel, 236
 Spurge Olive, 236
 Spurred Rye, 129
 Squawroot, 98, 99
 SQUAW-VINE, 329
 Squaw-weed, 208
 SQUILL, 330
 Squirrel Corn, 352
Stachys Betonica, 378
Stachys palustris, 382
Stachys sylvatica, 94, 382
 Stagbush, 40
 Staggerweed, 352
 Staggerwort, 290
 Staphisagris, 332

- STAR-ANISE, 331
 Star-Anise Fruits, 331
 Star, Blazing, 356
 Star Chickweed, 86
 Star Grass, 356
 Star Thistle, 196
 Starweed, 86
 Starwort, 354
 Starch, Cassava, 345
 Starchwort, 116
 Starvesacre, 332
Statice Caroliniana, 314
Statice limonium, 314
 STAVESACRE, 332
Stellaria media, 86
Sterculia acuminata, 198
 Stickwort, 7
Sticta pulmonaria, 220
Stigmata maridis, 108
Stillingia sylvatica, 289
 Stinging Nettle, 247
 Stinking Arrach, 18
 Stinking Gladwyn, 152
 Stinking Nanny, 290
 Stinkweed, 336
 St James' Wort, 290
 St. John's Bread, 193
 St. JOHN'S WORT, 331
 St Vincent Arrowroot, 20
 STOCKHOLM TAR, 332
Stoechas citrina, 131
 Stonecrop, Ditch, 334
 STONECROP, VIRGINIA, 334
 Stone Root, 334
 STORAX, 335
 Storax, Liquid, 335
 Storax, Prepared, 335
 STRAMONIUM, 336
 STRAWBERRY, 337
 Strawberry Tomato, 375
 STROPHANTHUS, 337
Strophanthus Kombe, 337
Strychnos Ignatii, 183
Strychnos Nux Vomica, 250
Styrax, 335
Styrax Benzoin, 32
 Succory, 87
 Succory, Wild, 87
 Sulphur, Vegetable, 95
 Sumach, Chinese, 351
 Sumach, Fragrant, 338
 Sumach, Pennsylvania, 338
 SUMACH, SMOOTH, 338
 SUMACH, SWEET, 338
 Sumach, Upland, 338
 Sumatra Benzoin, 32
 SUNBUL, 339
 SUMMER SAVORY, 310
 SUNDEW, 340
 Sundew, Roundleaved, 340
 SUNFLOWER, 340
 Surgeon's Agaric, 12
 Suterberry, 283
 Swallowwort, 276
 Swamp Dogwood, 360
 Swamp Hellebore, 166
 Swamp Maple, 226
 SWAMP-MILKWEED, 341
 Swamp-Silkweed, 341
 Swamp Tea Tree, 63
 Sweatroot, 1
 Sweet Almonds, 9
 Sweet Balm, 25
 Sweet Basil, 27
 Sweet Bay, 203
 Sweet Broom, 60
 Sweet Bugle, 55
 SWEET CICELY, 88
 Sweet Chervil, 88
 Sweet Fern, 232
 Sweet Flag, 64
 SWEET GALE, 146
 SWEET MARJORAM, 227
 SWEET ORANGE, 256

- Sweet Sedge, 64
 SWEET SUMACH, 338
 SWEET VERNAL GRASS, 358
 Sweet Violet, 359
 Sweetscented Cactus, 248
 Sweet Wood Bark, 73
Swerthia Chirata, 88
Sycocarpus Rusbyi, 97
 Sylvestris Pine Oil, 272
Symphytum officinale, 103
Symplocarpus fœtidus, 320
 Syrian Tragacanth, 350

 Tabacca, 348
 TAG ALDER, 341
 Tailed Pepper, 115
 TAMARAC, 342
 Tamarind Fruit, 342
 Tamarind Pulp, 342
 TAMARINDS, 342
Tamarindus Indica, 342
Tamarindus officinalis, 342
Tamus communis, 50
Tanacetum vulgare, 344
 Tang-kui, 218
 Tanner's Bark, 251
 TANSY, 344
 TAPIOCA, 345
 Tapioca Meal, 345
 Tar, 332
 TAR, STOCKHOLM, 332
Taraxacum Dens-leonis, 120
Taraxacum officinale, 120
Taxus Baccata, 387
 TEA, 345
 Teaberry, 375
 Tea, Brazil, 260
 Tea, James's, 200
 Tea, Jesuit's, 260
 TEA, PARAGUAY, 260
 Tea Root, Jersey, 293
 Tea Tree, Broad-leaved, 63
 Tea Tree, Swamp, 63
 Tea Tree, White, 63
 Tea, Waldmeister, 378
Terminalia Chebula, 246
 Terra Japonica, 76
Teucrium Chamaedrys, 150
Teucrium Scordium, 366
Teucrium Scorodonia, 379
 Texan Snakeroot, 322
Thea Chinensis, 345
Theobroma Cacao, 62
 Thistle, Black Ray, 196
 Thistle, Blessed, 172
 THISTLE, HOLY, 172
 Thorn Apple, 336
 Thorny Burr, 56
 Thoroughwort, 45
 Thousand-leaf, 382
 Throatwort, 138
 THUJA, 346
Thuja occidentalis, 346
 Thumb, 94
 THYME, 346
 Thyme, Basil, 64
 Thyme, Dodder of, 122
 Thyme, Garden, 346
 Thyme, Mother of, 347
 THYME, WILD, 347
Thymus Serpyllum, 347
Thymus vulgaris, 346
Tiarella cordifolia, 105
 Tighum, 115
Tighum officinale, 115
Tilia argentea, 210
Tilia cordata, 209
Tilia Europæa, 209
Tilia platyphylla, 209
Tilia vulgaris, 209
 Tinder, German, 12
 Tinnevelly Senna, 316
Tissa rubra, 17
 TOAD FLAX, YELLOW, 347

- TOBACCO, 348
 Tobacco, Indian, 216
 Tobacco Leaf, 348
 TOLU BALSAM, 348
Toluisfera Balsamum, 348
Toluisfera Pereira, 270
 Tomato, Strawberry, 375
 Tomillo, 346
 Tongue, Dead, 365
 TONKA-BEANS, 349
 Tonquin Beans, 349
 Toothache Tree, 283
 TORMENTILLA, 350
 Touch-me-not, Pale, 192
 Touch-me-not, Spotted, 192
 TRAGACANTH, 350
 Tragacanth, Gum, 350
 Tragacanth, Syrian, 350
 TRAILING ARBUTUS, 16
 Treadsaf, 178
 Treadsoft, 178
 TREE, CABBAGE, 62
 TREE-OF-HEAVEN, 351
 Tree of Life, 346
 Tree Primrose, 134
 TREE, SOAP, 323
 Trefoil, 293
 Trefoil, Marsh, 52
 Trefoil, Shrubby, 360
Trifolium pratense, 293
Trigonella Fœnum-græcum, 141
Trilisia odoratissima, 120
Trillium erectum, 34
Trillium pendulum, 34
Triticum repens, 110
 TRUE UNICORN ROOT, 356
 True Winter's Bark, 374
Tsuga canadensis, 274
 Tuber Root, 276
 TURKEY CORN, 352
 Turkey Pea, 352
 TURKEY RHUBARB, 295
 TURMERIC, 352
Turnera diffusa, 118
 Turnip, Indian, 362
 Turnip, Wild, 362
 TURPENTINE, 353
 TURPETH, 354
 Turpeth Root, 354
 Turtle Bloom, 26
 Turtle Head, 26
Tussilago Farfara, 102
Tussilago Petastiles, 60
 Twitchgrass, 110
 Uabano, 162
 Uaranazeiro, 162
Ulmus campestris, 128
Ulmus fulva, 321
Uncaria Gambier, 76
 UNICORN ROOT, FALSE, 354
 UNICORN ROOT, TRUE, 356
 Upland Sumach, 338
Urginea maritima, 330, 331
Urginea Scilla, 330
Urginea Indica, 331
Urtica dioica, 247
 Ustilago, 107
Ustilago Maydis, 107
 UVA-URSI, 356
 Uvedalia, 29
Vaccinium Myrtillus, 34
 Valencia Saffron, 301
 VALERIAN, 357
 Valerian, American, 202
 Valerian, American Greek, 1
 Valerian, English Greek, 189
 Valerian, Greek, 189
 Valerian, Great Wild, 357
Valeriana officinalis, 357
 Vanilla Leaf, 120
 Vanilla, Wild, 120
 Vegetable Gold, 156

- Vegetable Sulphur, 95
 Veratrum, American, 166
Veratrum officinale, 300
Veratrum viride, 166
Verbascum thapsus, 243
Verbena hastata, 358
 Verbena, Lemon-scented, 212
Verbena officinalis, 358
Verbena triphylla, 212
 Vermes, 380
 VERNAL GRASS, SWEET, 358
 * *Veronica Beccabunga*, 47
Veronica officinalis, 328
Veronica Virginica, 42
 Vervain, 358
Viburnum Opulus, 112
Viburnum prunifolium, 40
Vinca major, 268
Vinca rosea, 270
 Vine, Poison, 277
 Vine, Wild, 50
Viola calcarata, 360
Viola odorata, 359
Viola tricolor, 360
 VIOLET, 359
 Violet Bloom, 38
 Violet, Blue, 359
 Violet, Dog's Tooth, 3
 Violet, Sweet, 359
 Viper's Bugloss, 55
 Virginian Snakeroot, 323
 VIRGINIAN STONECROP, 334
 Virginian Creeper, 188
 Virginian Prune, 369
Viscum album, 236
Vitis hederacea, 188
Vitis quinquefolia, 188
 WAFER ASH, 360
 WAHOO, 362
 WAKE ROBIN, AMERICAN, 362
 Waldmeister Tea, 378
 Wallwort, 124
 WALNUT, 363
 Walnut, White, 61
 Water Agrimony, 59
 Water Avens, 22
 WATER BETONY, 364
 Water Bugle, 55
 Water Cabbage, 368
 Water Cup, 275
 WATER DOCK, 364
 WATER DROPWORT, 365
 Water Dropwort, Hemlock, 365
 WATER FENNEL, 365
 Water Flag, 44
 WATER GERMANDER, 366
 Water Lovage, 365
 Water Nymph, 368
 Water Pepper, 322
 Water Pimpernel, 47
 WATER PLANTAIN, 366
 Waxberry, 28
 Wax Myrtle, 28
 Waxwork, 38
 Waybread, 276
 Weeping Ash, 21
 Western Scullcap, 313
 West Indian Snakewood, 71
 White Agaric, 6
 White Birch, 35
 WHITE BRYONY, 50
 White Cedar, False, 346
 White Churetta, 88
 White Cinnamon, 69
 White Daisy, 258
 White Deadnettle, 17
 White Lily, 233
 WHITE PINE, 273
 WHITE POND LILY, AMERICAN,
 368
 White Poplar, 280
 White Tea Tree, 63
 White Walnut, 61

- White Weed, 258
 WHITE WILLOW, 373
 White-wood, 63
 Whortleberries, 34
 Wild Brier, 122
 WILD CARROT, 369
 Wild Chamomile, 232
 WILD CHERRY, 369
 WILD GINGER, 151
 Wild Hydrangea, 180
 WILD INDIGO, 370
 Wild Lemon, 225
 WILD LETTUCE, 207
 Wild Liquorice, 192
 Wild Marjoram, 228
 WILD MINT, 372
 Wild Nard, 21
 Wild Pansy, 164
 Wild Rosemary, 200
 Wild Succory, 87
 Wild Tansy, 319
 WILD THYME, 347
 Wild Turnip, 362
 Wild Vanilla, 120
 Wild Vine, 50
 Wild Woodbine, 148
 WILD YAM, 372
 WILLOW, BLACK, AMERICAN, 373
 Willow, English, 373
 Willow, European, 373
 Willow, Pussy, 373
 Willow, Red, 257
 Willow, Rose, 257
 WILLOW, WHITE, 373
 Wind Flower, 286
 Wind Root, 276
 Wingseed, 360
 Wintera, 374
Wintera aromatica, 374
 WINTER CHERRY, 375
 Winter Clover, 329
 Winter Pink, 16
 WINTERGREEN, 375
 WINTER'S BARK, 374
 Winter's Bark, False, 374
 Winter's Bark, True, 374
 Winter's Cinnamon, 374
 WITCH HAZEL, 376
 Witcher, 238
 Woadwaxen, 125
 Wolfsbane, 2
 WOOD BETONY, 378
 Wood, Bitter, 288
 Wood, Yellow, 283
 Woodbine, Wild, 148
 Woodroof, 378
 WOODRUFF, 378
 WOOD SAGE, 379
 WOOD-SORREL, 379
 Wood-Sorrel, Common, 379
 Woodvine, 188
 Woody Nightshade, 38
 Wool Flower, 200
 Worm Bark, 62
 Wormgrass, 273
 WORMSEED, 379
 Wormseed, American, 379
 WORMSEED, LEVANT, 380
 WORNWOOD, 381
 Woundwort, Clown's, 382
 Woundwort, Downy, 382
 WOUNDWORT, HEDGE, 94, 382
 WOUNDWORT, MARSH, 382
Xanthoxylum Carolinianum, 283
Xanthoxylum fraxineum, 283
 YAM, WILD, 372
 YARROW, 382
 Yaw Root, 289
 Yellow Bedstraw, 114, 201
 Yellow Cabbage Tree, 62
 Yellow Cedar, 346
 YELLOW DOCK, 384
 YELLOW FLAG, 385

Yellow Iris, 385	YERBA REUMA, 386
Yellow Jasmine, 148	YERBA SANTA, 386
Yellow Ladies' Slipper, 202	YEW, 387
Yellow Leaf Cup, 29	YOHIMBE BARK, 387
Yellow Loosestrife, 218	
YELLOW PARILLA, 385	Zanzibar Aloes, 10
Yellow Root, 155	<i>Zanthoxylum americanum</i> , 283
Yellow Snowdrop, 3	<i>Zanthoxylum Clava-Herculis</i> , 283
Yellow Wood, 283	<i>Zea Mays</i> , 108
Yerba Buena, 328	ZEDOARY, 387
<i>Yerba dulce</i> , 211	<i>Zingiber officinale</i> , 150
Yerba Maté, 260	<i>Zizyphus vulgaris</i> , 193

Index to Colour Plates.

ACONITE (Monkshood)	<i>Facing page</i>	10
BELLADONNA (Deadly Nightshade) ..	..	34
BUGLE ... . . . .	..	50
COLTSFOOT ..	..	98
CRANESBILL ...	..	114
FOXGLOVE ..	..	138
MEADOWSWEET ...	..	226
PEPPERMINT ..	..	266
PILEWORT ..	..	274
TOAD FLAX .	..	346
WOOD BETONY .	..	370
WOODRUFF ...	..	378

Potter's Cyclopædia of Botanical Drugs and Preparations.

ABSCCESS ROOT. *Polemonium reptans*, Linn.
Fam. *Polemoniaceæ*.

Syn.—American Greek Valerian, False Jacob's Ladder, Sweatroot.

Action—Diaphoretic, astringent, alterative, expectorant. This drug has been recommended in febrile and inflammatory diseases, pleurisy, &c. It is useful in coughs, colds, and bronchial or lung complaints. The warm infusion of 1 ounce in a pint of boiling water, taken in wineglassful doses, produces a copious perspiration.

Distinctive character—Root rhizomatous, slender, 1-2 inches long, and $\frac{1}{8}$ inch in diameter, with the bases of numerous stems on the upper surface, and tufts of slender, smooth, wiry, pale, brittle roots below. Taste, slightly bitter and acrid.

ACACIA BARK. *Acacia arabica*, Willd.
Acacia decurrens, Willd.

Syn.—Babul Bark.

Action—Astringent. Largely used for Tanning.

Distinctive character—Hard rusty brown pieces 3 to 10 mm. thick, readily dividing into layers, much fissured; inner surface striated and fibrous.

Acacia decurrens smoother than *arabica*

ACACIA.*Acacia Senegal*, Willd.(And other species.) Fam. *Leguminosæ*.

Syn.—Gum Acacia, Gum Arabic.

Action—Demulcent, mucilaginous. Often used as an ingredient in medicinal compounds for the treatment of diarrhœa, dysentery, catarrh, cough, hoarseness, fevers, &c., when a demulcent is required.

Preparations—Inj. Sod. Chlorid. et Acac. B.P. Mucil. Acac. B.P.: Dose, 1-4 fluid drachms. Pulv. Trag. Co. B.P.: Dose, 10-60 grains. Syr. Acac. B.P.C.: Dose, 1-4 fluid drachms.

Distinctive character—Gum in rounded or angular pieces, which are cracked externally, transparent internally. It gives an adhesive mucilage with hot water, which is not ropy nor glairy. The mucilage keeps better if made with boiling than with cold water.

ACONITE (Poison).*Aconitum Napellus*, Linn.Fam. *Ranunculacæ*.

Syn.—Monkshood, Wolfsbane.

Action—Sedative, anodyne, febrifuge. Useful in all febrile and inflammatory diseases, scarlatina, gastritis, and facial neuralgia, also in acute catarrh, ulcerated tonsils, and croup. In palpitation and heart spasm it has been used with success. Overdoses should be carefully avoided, as no certain antidote is known. Salvolatile and brandy should be given at once in cases of poisoning.

Preparations—Fluid extract leaves: Dose, 2-4 minims. Fluid extract root U.S.P.: Dose, $\frac{1}{2}$ -2 minims. Chlorof. Aconit. B.P.C. Lin. Aconit. B.P. Lin. Aconit. Oleos B.P.C. Pig. Aconit. Co. B.P.C. Pig. Iod. et Aconit. B.P.C. Tinct. Aconit. B.P.C.: Dose, 2-5 minims. Tinct. Aconit. Fort. B.P.C. (Fleming's Tinct. of Aconite) about 5 times strength of Tinct. Aconit. B.P.C. Tincture U.S.P. XI (1 in 10): Dose, 10 minims.

Distinctive character—Root blackish, conical above, tapering below. Internally white and starchy, with a 5-7-angled star-shaped centre. Taste, tingling and numbing in less than two minutes. Very poisonous. **Poison**—Antidotes : Emetics, ether, ammonia.

Other varieties : *Aconitum uncinatum*, Linn. ; var. *japonicum* Regel, Japanese Aconite Root, smaller and less wrinkled, paler than English root. Another variety of Japanese Aconite Root is obtained from *Aconitum Fisheri*. *Aconitum deinocephalum*, Stapf., Indian Aconite Root. Yellowish brown, coarsely wrinkled, horny fracture, larger than English root.

ACORNS.

Quercus robur, Linn.

Fam. *Cupuliferæ*.

The well-known fruit of the Oak.

Action—Astringent. An old remedy for diarrhoea. The Acorns are grated or powdered and washed down with water.

ADDER'S TONGUE, AMERICAN.

Erythronium Americanum, Ker-Gawl.

Fam. *Liliaceæ*.

Syn.—Serpent's Tongue, Dog's Tooth Violet, Yellow Snowdrop.

Action—Emetic, emollient, antiscrofulous. The fresh leaves are used as a poultice in scrofulous ulcers and tumours, together with an infusion taken internally in wineglassful doses. Is reputed of use in dropsy, hiccough, and vomiting.

Distinctive character—Leaves, two only, lanceolate, $2\frac{1}{2}$ inches long by 1 inch wide, minutely wrinkled, veins longitudinal, parallel, leafstalk 2-3 inches long. Flower yellow, star-shaped, 1 inch wide, with six stamens. Corms slender, spindle-shaped, $\frac{1}{2}$ -1 inch long. Taste, sweetish. The drug should be kept in a dry place.

ADDER'S TONGUE, ENGLISH.

Ophioglossum vulgatum, Linn.Fam. *Filices*.

Action—Antiseptic, detergent.

Distinctive character—Leaf solitary, lanceolate, with forked veins, bearing a stalked linear spike of spore-cases in a double row. Root fibrous. Boiled in oil or fat is deemed a panacea for wounds and to cool inflammation.

ADRUE.

Cyperus articulatus, Linn.Fam. *Cyperaceæ*.

Syn.—Guinea Rush.

Action—Anti-emetic. It possesses aromatic properties, diffusing a feeling of warmth throughout the system and acts as a sedative in dyspeptic disorders. Is particularly useful in vomiting of pregnancy, &c.

Preparation—Fluid extract : Dose, 10-30 drops.

Distinctive character—Blackish, somewhat top-shaped tubers, with bristly remains of former leaves $\frac{3}{4}$ -1 inch long and $\frac{1}{4}$ - $\frac{3}{4}$ inch in diameter, sometimes in a series of two or three connected by means of an underground stem $\frac{1}{2}$ inch in diameter and 1-2 inches long. Transverse section pale, showing a central column with darker points indicating vascular bundles. Taste, bitterish, aromatic, recalling that of lavender.

AGAR-AGAR.

Gelidium Amansii, Kutz.(And other species.) Fam. *Algæ*.

Syn.—Japanese Isinglass.

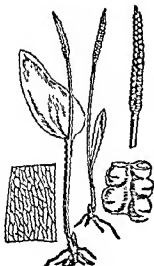
Action—Nutritive. The commercial varieties are used in bacteriological investigations, and for technical purposes in sizing silks and fabrics.

One ounce to 20 ounces of boiling water makes a suitable jelly for invalids, &c. This may be flavoured



ACONITE

(See page 2)



ADDER'S TONGUE, English

(See page 4)



AGRIMONY

(See page 7)



ANGELICA, European

(See page 14)

with lemon or as desired. The powdered Agar in doses of 1 drachm given with stewed fruits is recommended for constipation. It is also frequently used in the form of an ingredient in an emulsion of liquid paraffin for this purpose.

Preparations—Emuls. Paraff. Liq. Co. B.P.C.: Dose, 1-4 drachms. Emuls. Paraff. Liq. c. Agar B.P.C.: Dose, 1-4 drachms.

Distinctive character—In slender, shrivelled, translucent slips about $\frac{1}{4}$ inch wide and 9 or 10 or more inches long, or in quadrangular sticks about an inch in diameter; colourless and tasteless. Capable of taking up 200 times its volume of water to form a jelly.

Acetic, hydrochloric, and oxalic acids prevent its gelatinisation.

The Agar-Agar Seaweed is washed and bleached by exposure to the air. It is then boiled in water and the strong decoction allowed to set in the form of a jelly, which is forced through wire netting into strips.

AGARICUS.

Fomes officinalis, Faull.

Fam. *Polyporaceæ*.

Syn.—*Boletus Laricis*, White Agaric, Larch Agaric, Purging Agaric.

Action—Astringent, purgative. Used in small doses to check night sweats, diarrhoea, and milk secretion after weaning. In large doses it acts as a purgative and may cause vomiting. Dose 3-30 grains.

Distinctive character—In white, spongy, friable masses, sometimes with the lower portion attached. The surface is usually brownish and the internal structure whiter and porous. The odour is meal-like and the taste sweetish, then bitter and acrid. The powder shows typical threads and minute calcareous concretions.

AGRIMONY. *Agrimonia Eupatoria*, Linn.

Fam. *Rosaceæ*.

Syn.—Stickwort.

Action—Mild astringent, tonic, diuretic. Useful in coughs, simple diarrhœa, and relaxed bowels. Best mode of using is by making a decoction of 1 ounce of herb in 1 pint of boiling water, sweeten with honey or sugar, and take frequently in doses of half a cupful and upwards. It gives tone to the system and promotes assimilation of food. An old remedy for debility.

Preparation—Fluid extract: Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Leaves hairy, 5 inches or more long, having 3–5 pairs of lanceolate toothed leaflets, with intermediate smaller ones, and half-cordate, toothed stipules. Flowers small, yellow, on a long spike. Fruit small, obconical, ribbed, with hooked bristles at the apex. Taste, astringent, slightly bitter.

ALDER, ENGLISH. *Alnus glutinosa*, Gaertn.

Fam. *Betulaceæ*.

The leaves are glutinous and were used for inflammations.

Distinctive character—Bark in curved or quilled pieces about $\frac{1}{8}$ inch thick, brownish grey externally, brownish orange on the inner surface. Fracture short, uneven. Astringent and tonic.

The so-called "berries" are the woody, nearly globular, female catkins, after the seeds have fallen, about $\frac{3}{4}$ inch long and $\frac{1}{2}$ inch in diameter. The scales of the catkins are ovate and undivided. A decoction of the bark is an old remedy used as a gargle for sore throat.

ALDER, BLACK, AMERICAN.*Prinos verticillatus*, Linn.Fam. *Aquifoliaceæ*.

Parts used—Bark, berries.

Action—Cathartic. Used for constipation generally. Very similar in action to Cascara, to which it is preferred by some practitioners. Dose, fluid extract of bark, $\frac{1}{2}$ –1 drachm.

Distinctive character—Bark brownish grey, in quilled thin pieces about $\frac{1}{8}$ inch thick, with whitish patches having black margins and dark circular spots, or in older pieces short oblong transverse marks. The outer layer easily separates. Inner surface greenish or yellowish white. Taste, bitter and astringent.

The berries resemble those of the common Holly in size, colour, and shape, and contain six cells and six seeds. The taste is bitter and somewhat acid.

ALKANET.*Alkanna tinctoria*, Tausch.Fam. *Boraginaceæ*.

Syn.—Dyer's Bugloss, Spanish Bugloss, Anchusa, Orchanet, *Lithospermum tinctorium*, Vahl.

Action—This drug is rarely employed for its medicinal properties, which are stated to be emollient, but mostly as a colouring agent for oily or greasy compounds, such as pomades, hair oils, ointments, &c., &c.

Distinctive character—Root 2–4 inches long. Bark dark purplish, easily separating from the hard, porous, yellow, twisted woody centre; the crown of the root with hairy leaf-bases attached.

It colours paper purple, and fats and oils and spirit of wine red, but not water.

ALLSPICE.*Pimenta officinalis*, Lindl.Fam. *Myrtaceæ*.

Syn.—Pimento, Jamaica Pepper.

Action—Aromatic, stomachic, carminative. Largely used as a condiment. A good addition to other medicines in the treatment of flatulence, dyspepsia, and diarrhoea.

Preparations—Powdered fruit : Dose, 10–30 grains. Fluid extract : Dose, $\frac{1}{2}$ –1 drachm. Oil : Dose, 2–5 minims. Aq. Piment. Conc. B.P.C. : Dose, 5–15 minims.

Distinctive character—Fruits brown, globular, about $\frac{1}{10}$ inch in diameter, with a rough surface and a ring formed of the remains of calyx teeth at the apex. Seeds two, kidney shaped. Shell of fruit aromatic, with a mixed clove taste. Gathered unripe.

ALMONDS, SWEET. *Prunus communis*, Arcang.
var. dulcis, Schneid.

BITTER. *Prunus communis*, Arcang.
var. Amara, Schneid.

Fam. *Rosaceæ*.

Syn.—Sweet Almonds, Jordan Almonds, Bitter Almonds.

Action—Apart from their culinary use, the principal use of almonds is for the extraction of almond oil. Both bitter and sweet varieties contain a fixed oil which is largely used in the preparation of toilet creams. Its action is emollient. It is also administered internally as a nutrient, demulcent, and slight laxative.

Bitter Almonds, in addition to the fixed oil, also yield on distillation an essential oil containing 1 per cent. of prussic acid. This is removed with the prussic acid reagent. Almonds from which the poisonous ingredient has been removed is largely used for flavouring essences, the flavour of almonds being supplied by the Benzaldehyde which is present in the oil.

Peach Kernel Oil (*q.v.*) is sometimes used to adulterate Almond Oil, but is easily detected by shaking with equal parts of Sulphuric Acid, Nitric Acid, and water. Peach Kernel Oil gives a reddish brown colouration, whereas pure Almond Oil remains colourless.

Preparations—From Bitter Almonds—Lot. Amygdal. Amar. B.P.C. Ol. Amygdal. Amar. B.P.C. : Dose, $\frac{1}{2}$ –1 minim. Ol. Amygdal. Amar. s Acid. Hydrocyan B.P.C. : Dose, $\frac{1}{2}$ –1 minim. Sp. Amygdal. Amar. B.P.C.

From Sweet Almonds—Lot. Ros. B.P.C. Mist. Amygdal. B.P.C. : Dose, $\frac{1}{2}$ –1 fluid ounce. Pulv. Amygdal. Co. B.P.C. Ol. Amygdal. B.P.C. : Dose, 1–4 drachms. Lot. Ol. Amygdal. Ammon. B.P.C.

Ground Sweet Almonds contain all the oil. Almond flour is the powdered cake left after pressing, and contains only a small amount of oil. Owing to the absence of starch and high protein content, Almond Flour has been used as a food for diabetics.

ALOES.

The following varieties are official in the B.P. :

Curacao (or Barbadoes), derived from *Aloe Vera*, Linn., var. *officinalis*.

Socotrine, derived from *Aloe Perryi*, J. G. Baker, and other species.

Cape, derived from *Aloe ferox*, Miller.

Zanzibar Aloes is regarded as a variety of Socotrine.

Fam. *Liliaceæ*.

Action—Emmenagogue, purgative, anthelmintic, Used in constipation, dyspepsia, menstrual suppressions, and piles. Generally given in pill form combined with anodynes and carminatives, also in liquid forms. Given to nursing mothers it causes purging in the suckling infant. Acts particularly on the lower bowel.

Preparations—Fluid extract : Dose, 5–30 minims. Dec. Aloes Co. B.P.C. : Dose, $\frac{1}{2}$ –2 fluid ounces. Dec. Aloes Co. Conc. B.P.C. : Dose, 1–4 fluid drachms. Extract Aloes B.P.C. : Dose, 1–4 grains. Pil. Aloes B.P. :



MONKSHOOD

Aconitum Napellus

Dose, 4-8 grains. Pil. Aloes et Asafcet. B.P.: Dose, 4-8 grains. Pil. Aloes et Ferr.: Dose, 4-8 grains. Pil. Aloes et Myrrh B.P.C.: Dose, 1 or 2 pills. Pil. Aloes et Nuc. Vom. B.P.C.: Dose, 1 pill. Pil. Colch. et Aloes: Dose, 1-4 pills. Pulv. Aloes et Canell. (Hiera Picra): Dose, 3-10 grains. Tinct. Aloes B.P.C.: Dose, $\frac{1}{2}$ -2 fluid drachms. Tinct. Aloes Co. B.P.C.: Dose, 1-2 fluid drachms. Tinct. Aloes et Myrrh B.P.C.: Dose, $\frac{1}{2}$ -2 fluid drachms. Tinct. Antiperiodica B.P.C.: Dose, 1-4 fluid drachms. Vin. Aloes B.P.C.: Dose 1-2 fluid drachms. Aloin B.P., the active principle of Aloes: Dose, $\frac{1}{4}$ -1 grain.

Distinctive character—Socotrine is the mildest in action and the most expensive, but varies much in quality. The powder touched with nitric acid does not give a crimson colour.

Barbadoes or Curacao Aloes has a disagreeable odour and is livery or opaque. Two grains of it are equal to three of Socotrine in purgative action.

Cape Aloes is translucent and has a red-currant odour, a greenish tinge, and breaks with glassy fracture.

Good Aloes should yield 40 per cent of soluble matter to cold water. Both Barbadoes and Cape Aloes in powder give a crimson colour with nitric acid.

ALSTONIA BARK. *Alstonia constricta*, F. Muell.

Fam. *Apocynaceæ*.

Syn.—Fever Bark, Australian Quinine, Australian Febrifuge.

Action—Anti-periodic, febrifuge, tonic. An Australian remedy for all kinds of fevers. Also efficacious in certain forms of rheumatism.

Preparations—Powdered bark. Dose, 2-8 grains. Fluid extract: Dose, 4-40 drops.

Distinctive character—Bark in large quilled pieces, $1\frac{1}{2}$ -2 inches wide and $\frac{1}{2}$ inch thick, brown and corky externally, fissured deeply lengthwise and transversely,

the inner surface yellowish brown and coarsely striated. In transverse section, a corky layer showing alternate lighter and darker bands, and an inner fibrous yellow layer in which shining particles can be seen with a lens. Taste, bitter. The yellow infusion has a blue fluorescence.

ALSTONIA SCHOLARIS, R. Br. Fam. *Apocynaceæ*.

Syn.—*Echites scholaris*, Linn., Dita Bark, Devil Tree.

A native of India and the Philippines. Properties similar to *Alstonia constricta*. Dose, 2-8 grains.

Preparations—Infusion 1 ounce to 1 pint water: Dose, $\frac{1}{2}$ -1 fluid ounce. Tincture 1 in 8: Dose $\frac{1}{2}$ -1 fluid drachm.

Distinctive character—In irregular fragments $\frac{1}{2}$ - $\frac{1}{4}$ inch thick, fracture short and granular, externally rough brownish grey, often with darker spots. Internally, bright buff colour, showing numerous small medullary rays in the transverse fracture. Taste, bitter.

In the new B.P. Codex the name *Alstonia* Bark is applied to both species of *Alstonia*.

AMADOU.

Polyporus fomentarius, Fries.

Fam. *Polyporaceæ*.

Syn.—Surgeon's Agaric, German Tinder.

Action—Amadou has for long been used for arresting local hæmorrhages, being applied with pressure to the affected part. By inserting between the nail and the flesh, it is one of the best-known substances for treating ingrown toe-nails.

Distinctive character—A hoof-shaped obliquely triangular sessile fungus found on oak and birch trees in south and central Europe. The inner part is composed of short tubular fibres arranged in layers. It is prepared for use by being cut into slices, beaten, soaked in a solution of nitre, and dried.

AMARANTH. *Amaranthus hypochondriacus*, Linn.

Fam. *Amaranthaceæ*.

Syn.—*Amaranthus melancholicus*, Linn., Red Cockscomb, Love-lies-bleeding.

Action—Astringent. Highly recommended in menorrhagia, diarrhœa, dysentery, and hæmorrhages from the bowels. The decoction is taken in wineglassful doses. Externally this is used as an application in ulcerated conditions of throat and mouth, as an injection in leucorrhœa, and a wash for ulcers, sores, &c.

Preparation—Fluid extract : Dose : $\frac{1}{2}$ –1 drachm.

Distinctive character—Flattened stems bearing rounded tufts of minute flowers, hidden by crowded, linear, tapering, chaffy, crimson bracts. Seeds lens-shaped, black, about $\frac{1}{16}$ inch in diameter.

AMMONIACUM. *Dorema Ammoniacum*, D. Don.

Fam. *Umbelliferae*.

Syn.—Persian Gum Ammoniacum.

Action—Stimulant, antispasmodic, expectorant. Has been found especially useful in chronic affections of the respiratory organs, also in cough, asthma, bronchitis, catarrh, &c.

Preparations—Powdered gum : Dose, 5–15 grains (10–30 gr. U.S.D.). Mixture B.P.C. : Dose, $\frac{1}{2}$ –1 fluid ounce.

Distinctive character—The gum resin occurs in rounded nodules, or rarely compacted into masses, opaque, whitish, becoming brownish with age, fracture glossy. It forms an emulsion with water. Taste, acrid, slightly bitter. Flavour, characteristic. The solution in warm water is turned orange red by chlorinated lime.

ANGELICA, EUROPEAN.*Angelica Archangelica*, Linn.Fam. *Umbelliferae*.

Syn.—Garden Angelica.

Parts used—Root, Seeds, Herb.

Action—Aromatic, stimulant, carminative, diuretic, and diaphoretic. The infusion is made of 1 ounce of herb to 1 pint of boiling water: Dose, a wineglassful frequently.

Preparations—Powdered root: Dose, 10–30 grains. Fluid extract root: Dose, $\frac{1}{2}$ –1 drachm. Fluid extract herb: Dose, $\frac{1}{2}$ –1 drachm. Infusion root, 1 in 20: Dose, wineglassful.

The fruits are an ingredient in Tinct. Antiperiodica B.P.C.

Distinctive character—The European root is 2–4 inches long and 1–2 inches thick and much branched below. The transverse fracture shows numerous oil cells in the bark, and in the centre, curved yellow porous woody wedges. Taste, bitter, pungent. Flavour, characteristic, sweetish, and aromatic. The American root is derived from *Angelica atropurpurea*, Linn. It is less branched, has a lighter colour, and is less aromatic, with a different flower, resembling that of Lovage. The fruits (or so-called seeds) are whitish, plano-convex, oblong, rounded at the ends, $\frac{1}{4}$ inch long by $\frac{1}{8}$ inch broad, winged at the margins, having three longitudinal ridges on the convex and two on the flat surface. Taste, warm, aromatic, and slightly musky.

The leaf stalks dried and preserved with sugar form the sweetmeat called Candied Angelica.

ANGUSTURA, TRUE. *Galipea officinalis*, Hal.Fam. *Rutaceae*.

Syn.—Cusparia Bark, *Cusparia febrifuga*, D.C., *Bonplandia trifoliata*, W., *Galipea cusparia*, St. Hil.

A tree indigenous to Venezuela.

Action—Aromatic bitter, tonic, stimulant. In large doses, cathartic. Recommended in diarrhoea, dysentery, intermittent fevers, and dropsy, in doses varying from 5-15 grains of the powdered bark. Large doses of $\frac{1}{2}$ -1 drachm cause emesis and purging.

Preparations—Powdered bark: Dose, 5-15 grains. Fluid extract: Dose, 5-30 drops. Inf. Cuspariæ Conc. B.P.C.: Dose, $\frac{1}{2}$ -1 fluid drachm.

Distinctive character—Bark in slightly curved or quilled pieces $\frac{1}{8}$ inch thick, with thin laminæ on inner surface, yellowish grey externally, outer layer sometimes soft and spongy. Transverse section, dark brown. Taste, bitter; flavour, musty.

ANISEED.

Pimpinella Anisum, Linn.

Fam. *Umbelliferae*.

Syn.—Anise.

Action—Carminative and pectoral. Used in cough medicines and lozenges. The powdered seed is largely employed in condition and other condiments for horses.

Preparations—Aq. Anis. Conc. B.P.C.: Dose, 5-15 minims. Aq. Anis. Dest. B.P.C.: Dose, $\frac{1}{2}$ -1 fluid ounce. Syr. Anisi B.P.C.: Dose, $\frac{1}{2}$ -1 fluid drachm. Spt. Anisi B.P.C.: Dose, 5-20 minims.

Distinctive character—Fruits (or so-called seeds) greyish or brownish grey, ovate, hairy, about $\frac{1}{10}$ inch long, with 10 crenate ribs, often having the stalk attached. Taste, sweet. Odour, characteristic. They should be free from earthy matter

ANNATTO.

Bixa Orellana, Linn.

Fam. *Bixaceae*.

Syn.—Annotta, Arnotta, Orellana, Orleana.

Part used—Pulp of seeds. Obtained from Venezuela and Brazil.

"Annatto," the colouring matter of the pulp covering the seeds, is mostly used as a dye for fabrics, &c., and in pharmacy to colour plasters, ointments, and oils. It is also employed in various butter and cheese colours.

Distinctive character—In small circular cakes about $1\frac{1}{2}$ inches in diameter and $\frac{1}{2}$ inch thick, or in sausage-shaped rolls.

ARACHIS.

Arachis hypogæa, Linn.

Fam. *Leguminosæ*.

Syn.—Monkey Nuts, Pea Nuts, Earth Nuts.

Distinctive character—The lower flowers develop nuts which bury themselves in the earth and ripen. The seeds are reddish brown containing about 45 per cent. of nut oil

Grown largely in tropical Africa and India. The cake after the oil is expressed forms a popular cattle food.

ARBUTUS, TRAILING.

Epigæa repens, Linn.

Fam. *Ericacææ*.

Syn.—Gravel Plant, Ground Laurel, Mountain Pink, Winter Pink, Mayflower.

Action—Diuretic, astringent. This American plant is reputed to be superior to Buchu and *Urva-ursi* in all diseases of the urinary organs attended with irritation. It is of value in gravel, debilitated or relaxed bladder, and in urine containing blood or pus. The infusion of 1 ounce of leaves in 1 pint of boiling water may be drunk freely.

Distinctive character—Leaves stalked broadly ovate, $1-1\frac{1}{2}$ inches long and about 1 inch broad, leathery, reticulated with a cordate base and a short point at the apex. Lateral veins spreading, wavy with short hairs on the under surface. Taste, astringent and bitter. Odour, none.

ARCHANGEL.

Lamium album, Linn.Fam. *Labiatae*.

Syn.—White Deadnettle.

Distinctive character—Stem quadrangular, leaves opposite, reticulate veined, with spreading hairs, chiefly on the prominent veins below, and on the stem, margin with large serrate teeth. Flowers, large, white, two-lipped with two long and two short stamens. Taste, slightly bitter. Odour, none, when dried.

ARECA NUT.

Areca Catechu, Linn.Fam. *Palmaceae*.

Syn.—Betel Nut.

Action—Astringent, tænicide. It is chiefly used to expel tapeworms. The powdered nut is administered in doses from 2-4 drachms. The smaller dose is generally given in syrup, followed by a purgative.

Preparation—Fluid extract : Dose, 1-4 drachms.

Distinctive character—Seed conical or nearly spherical, 1 inch or more in diameter, hard and horny, marbled with brown lines internally. Taste, astringent and slightly acrid. The larger and more conical seeds are more active than the globular variety.

ARENARIA RUBRA. Linn.

Lepigonum rubrum, Fries.Fam. *Caryophyllaceae*.

Syn.—*Spergularia rubra*, Pers., Sabline rouge (Fr.), *Tissa rubra*, Adans, *Buda rubra*, Dum., Sandwort.

Action—Diuretic. A popular remedy in Malta for diseases of the bladder. Recommended in cystitis, stone, &c.

Dose of infusion, 1 ounce to 1 pint, a wineglassful frequently. Fluid extract, 1 drachm.

Distinctive character—Herb with jointed stems and flat linear leaves, about $\frac{1}{8}$ inch wide and nearly $\frac{1}{2}$ inch long, with ovate pointed stipules, flowers small, pink, in spreading, loose panicles, seeds not winged. Taste, saline and slightly aromatic.

ARNICA.*Arnica montana*, Linn.Fam. *Compositæ*.

Action—Stimulant, vulnerary. Largely used as a local application to bruises, swellings, &c. Being an active irritant, care should be exercised in internal employment. Severe and fatal cases of poisoning are on record.

Preparations—Tinct. Arnic. Flor. B.P.C.: Dose, $\frac{1}{2}$ –1 fluid drachm. Tinct. Arnic. Rad. B.P.C. Lin. Arnic. B.P.C.

Distinctive character—Rhizome $\frac{1}{2}$ – $\frac{3}{4}$ inch in diameter, 1–2 inches long with rather distant wing, unbranched rootlets below. Transverse fracture showing greyish pith and oil cells in the bark. Taste, acrid and bitter. Odour, like that of apples. The flowers have yellow florets, and brownish fruits, with a single row of whitish barbed hairs, and a hairy receptacle. Usually collected entire.

ARRACH.*Chenopodium olidum*, S. Wats.Fam. *Chenopodiaceæ*.

Syn.—Stinking Arrach, Goosefoot.

Action—Nervine, emmenagogue. Useful in hysteria of females and as a remedy for menstrual obstructions. The infusion of 1 ounce in a pint of boiling water is taken three or four times daily in wineglassful doses.

Preparation—Fluid extract: Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Herb with oval, stalked leaves, about $\frac{1}{2}$ inch long, entire at the margins; having a strong fishy odour and powdery surface.



ARCHANGEL

(See page 17)



ARENARIA RUBRA

(See page 17)



ARRACH

(See page 18)



ASH

(See page 21)

ARROWROOT.*Maranta arundinacea*, Linn.Fam. *Marantaceæ*.

Syn.—Bermuda Arrowroot, Maranta.

Action—Demulcent, non-irritating, nutritive. Well suited for infants and convalescents. Two or three teaspoonfuls may be boiled in a pint of water or milk and seasoned to taste, with sugar, lemon juice, fruit jellies, essences, or aromatics. Other kinds are the Natal and St. Vincent Arrowroot.

Distinctive character—A white powder containing small masses consisting of the starch obtained from the root. Under the microscope seen to consist of irregularly oval grains, having the helum at the larger end or near the middle. Average diameter, 30–40 μ .

ASAFETIDA.*Ferula foetida*, Regel.(And other species.) Fam. *Umbelliferae*.

Syn.—Asafœtida, Gum Asafetida.

Action—Stimulant, antispasmodic, expectorant. Useful in infantile convulsions, croup, and flatulent colic. It allays gastric irritation, hysteria, and spasmodic nervous diseases. Owing to its nauseous taste, it is mostly given in pill form.

Preparations.—Pdr. Gum-Resin : Dose, 5–20 grains. Pil. Aloes et Asafœt. B.P. : Dose, 4–8 grains. Pil. Asafœt. B.P. : Dose, 1–2 pills. Pil. Galban. Co. B.P.C. : Dose, 1–2 pills. Sp. Ammon. Fetid. : Dose, 20–40 minims. Tinct. Asafœt. B.P. : Dose, $\frac{1}{2}$ –1 fluid drachm. Emuls. Asafœt. U.S.P. XI : Dose, 4 fluid drachms.

Distinctive character—Distinguished by its powerfully alliaceous odour. Occurs in more or less sticky lumps of variable size, sometimes with a pinkish tint. Immersed in water, and ammonia added, a bluish fluorescence appears; touched with nitric acid it gives a green colour. It is the gum resin of the roots. Imported from Persia and Afghanistan.

ASARABACCA. *Asarum Europæum*, Linn.

Fam. *Aristolochiaceæ* ^

Syn.—Hazelwort, Wild Nard.

Parts used—Root, herb.

Action—Emetic, purgative, sternutatory. Is stimulant in doses of 10–12 grains; emetic in doses of 1–2 drachms. In France it is said that drunkards use it to produce vomiting.

Distinctive character — Leaves kidney-shaped, smooth, leathery, stalked. Flowers solitary, bell-shaped, with three segments, purplish within. Rhizome slender, 2–4 inches long and $\frac{1}{8}$ inch thick, quadrangular tortuous, thickened at intervals where rootlets are given off, with stem scars on the upper surface.

ASH. *Fraxinus excelsior*, Linn.

Fam. *Oleaceæ*.

Syn.—Common Ash, European Ash, Weeping Ash.

Parts used—Bark, leaves.

Action—Antiperiodic, laxative, purgative. At one time the bark was extensively used in intermittent fevers, ague, &c. The leaves are used with success in gouty, arthritic, and rheumatic complaints.

Distinctive character — Bark thin, greenish, or greyish brown, in curved pieces about $\frac{1}{8}$ inch thick and about $1\frac{1}{2}$ inch broad, with distant longitudinal furrows, inner surface pale brown, laminated, transverse section showing many thin layers, outer surface rough and scaly in older bark. Taste, faintly bitter. Odour, none. American white ash bark has numerous small circular depressions externally, and a slightly less laminate fracture.

ASPARAGUS.

Asparagus officinalis, Linn.Fam. *Liliaceæ*.

Action—Diuretic, laxative, cardiac, sedative. It is said that this plant produces a copious diuresis, and it has been recommended in dropsy, enlargement of heart, &c. The fresh expressed juice is taken in tablespoonful doses. It can be made more palatable in the form of a syrup and is used as such in doses of 1-2 tablespoonfuls.

Distinctive character—Root about 2 inches long and $\frac{1}{2}$ – $\frac{3}{4}$ inch thick with loose laminate texture internally, giving off long, compressed, tough rootlets several inches long, and $\frac{1}{8}$ – $\frac{1}{4}$ inch in diameter, nearly hollow, with a central woody cord. Taste, insipid. Odour, none.

AVENS.

Geum urbanum, Linn.Fam. *Rosaceæ*.

Syn.—Colewort, Herb Bennet, *Radix caryophyllata*.

Water Avens is a distinct species with purplish flowers. Those of *G. urbanum* are yellow.

Parts used—Herb and root.

Action—Astringent, styptic, tonic, febrifuge, stomachic. Its constant use is said to have a highly restorative power in weakness, debility, &c. Also useful in diarrhœa, sore throat, and leucorrhœa. The infusion is made of 1 ounce of powdered herb or root to 1 pint of boiling water and taken in wineglassful doses three or four times a day.

Preparations—Fluid extract herb : Dose, 1 drachm. Fluid extract root : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Root 1-2 inches long, obconical, abrupt below, hard and rough, with light brown rootlets. Transverse section light purplish brown with thin bark, a narrow woody ring and large pith. Taste, astringent, slightly bitter, with a clove flavour. Plant is more conspicuous for its seed than flower. When the petals have withered a round brown



ASPARAGUS

(See page 22)



AVENS

(See page 22)



BALM

(See page 23)



BARBERRY

(See page 26)

ball of awned seeds succeeds them. The seeds are covered with hairs or bristles which fix themselves on any passing object ; stem slender about 1-2. Leaves on stem, two leaflets and one margin toothed terminal lobe. Flowers yellow. Taste, astringent. Odour, none.

AZADIRACHTA.

Mella Azadirachta, Linn.

Fam. *Meliaceæ*.

Syn.—Nim, Margosa, Neem.

Action—Anthelmintic ; it is also said to be cathartic and emetic. Used in Southern States of America for worms in children, and generally given in form of a decoction made of 4 ounces of bark to 1 quart of water and boiled down to 1 pint. Dose, a tablespoonful every three hours or a dose evening and morning followed by castor oil or some other active cathartic.

Preparations—Infusion, $\frac{1}{2}$ -1 ounce. Tincture, $\frac{1}{2}$ -1 drachm.

Distinctive character—Bark greyish brown, rough, and cracked externally ; inner surface bright buff, in pieces about 2-3 inches wide and $\frac{1}{2}$ inch thick. Transverse fraction fibrous, the inner portion showing distinct layers. Taste, astringent and bitter. Odour, none.

BAEL.

Ægle Marmelos, Correa.

Fam. *Rutaceæ*.

Syn.—Bel, Indian Bael, Bengal Quince.

Part used—Unripe fruit.

Action—Astringent. An Indian remedy and almost a specific for diarrhoea, dysentery, &c. It does not constipate.

Preparation—Ext. Belæ Liq. B.P.C. : Dose, 1-2 drachms.

Distinctive character—Fruit globular or sometimes oval, with a hard shell divided internally like an orange, flesh reddish, hard when dry, seeds numerous, covered with a gummy layer. Taste, mucilaginous, slightly acid.

BALM.

Melissa officinalis, Linn.Fam. *Labiatae*.

Syn.—Sweet Balm, Lemon Balm.

Part used—Herb

Action—Carminative, diaphoretic, febrifuge. Induces mild perspiration and makes a pleasant and cooling tea for feverish patients. To make the tea, pour 1 pint of boiling water upon 1 ounce of herb, let it stand for a quarter of an hour, allow to cool, then strain and drink freely. A very useful herb, either alone or in combination with others.

Preparation—Fluid extract : Dose, $\frac{1}{4}$ –1 drachm.

Distinctive character—Leaves opposite, stalked, about $1\frac{1}{2}$ inch long, thin, broadly ovate, with a rounded base (wedge-shaped in the upper leaves), coarsely serrate and wrinkled. Taste and odour like lemon.

BALM OF GILEAD.

Populus candicans, Ait.Fam. *Salicaceae*.

Part used—Buds.

Action—Stimulant, tonic, diuretic. It is of great benefit in all affections of chest, lungs, stomach, and kidneys. As an ointment it is good for colds and pains in the chest, cutaneous diseases, rheumatic and gouty pains.

Preparations—Solid extract. Dose, 5–10 grains. Tincture : Dose, 1–4 drachms. Fluid extract. Dose, 1–2 drachms.

Distinctive character—Buds about 1 inch long and $\frac{1}{4}$ inch broad, scales brownish, narrowly ovate, closely overlapping, polished, inner scales sticky and resinous. Odour, balsamic. Taste, balsamic and slightly bitter.

BALMONY.

Chelone glabra, Linn.

Fam. *Scrophulariaceæ*.

Syn.—Bitter Herb, Snake Head, Turtle Head, Turtle Bloom.

Part used—Leaves.

Action—Antibilious, anthelmintic, tonic, detergent. Used largely in constipation, dyspepsia, debility, and jaundice. In all diseases of the liver it will be found very valuable, and is a certain remedy for worms in children. An infusion of I ounce to x pint of boiling water may be taken frequently in doses of a wine-glassful.

Preparations—Powdered herb : Dose, 5-10 grains. Fluid extract : Dose, $\frac{1}{2}$ -1 drachm. Chelonin : Dose, 1-2 grains.

Distinctive character—Leaves opposite, oblong lanceolate, shortly stalked, fruits crowded in a short spike, ovate, $\frac{1}{2}$ inch long, two-celled with nearly circular, winged seeds, having a dark centre. Taste, very bitter. Odour, slightly tea-like.

BAMBOO BRIER.

Aralia nudicaulis, Linn.

Fam. *Araliaceæ*.

See SARSAPARILLA, AMERICAN.

BARBERRY.

Berberis vulgaris, Linn.

Fam. *Berberidaceæ*.

Syn.—Berbery, Berberidis, Pipperidge-Bush, *Berberis dumetorum*, Gouan.

Parts used—Bark, rootbark.

Action—Tonic, purgative, and antiseptic. Used in all cases of jaundice, liver complaints, general debility, and fevers, being a powerful cathartic. The berries are used in diarrhoea, dysentery, and fevers. &c.

Preparations—Powdered bark : Dose, $\frac{1}{4}$ teaspoonful three to four times daily. Fluid extract : Dose, $\frac{1}{2}$ –1 drachm. Solid extract : Dose, 5–10 grains.

Distinctive character—Stem bark thin, externally yellowish grey, orange yellow on the inner surface, separating in layers. Root bark dark brown externally, fracture short. Taste, very bitter.

BARLEY.

Hordeum distichon, Linn.

Fam. *Graminaceæ*.

Syn.—Pearl Barley, Perlatum.

Part used—Decorticated seeds.

Action—Nutritive, demulcent. As an article of diet for the sick and convalescent it is largely used. Barleywater is a demulcent food beverage for children suffering from diarrhoea, catarrhal inflammation of bowels, &c. The decoction made from the washed Barleycorns—2 ounces to a pint of water—is an un-irritating food in chronic exhausting diseases. Extract of Malt (U.S.P.) is largely manufactured from Barley and is a medicinal form of administration by itself and in its various combinations.

Distinctive character—Two forms of decorticated barley are sold, known respectively as Scotch hulled or Pot Barley, which is not entirely deprived of the husk, and Pearl Barley. Pearl Barley should always be washed before being boiled, as it is apt to accumulate dust.

BASIL.

Ocimum basilicum, Linn.

Fam. *Labiataæ*.

Syn.—Sweet Basil.

Part used—Herb.

Action—Aromatic, carminative, cooling. Although generally employed in domestic circles for cooking and flavouring purposes, it has occasionally been used with success in medicine for mild nervous disorders. In South America the fresh juice is used as a vermifuge

Distinctive character—Stems obtusely quadrangular. Leaves opposite, oval, lanceolate, about 1 inch long and $\frac{1}{2}$ inch broad, stalked, greyish green beneath and dotted with dark oil cells. Calyx with upper lobe rounded and spreading. Seeds brown and obtuse. Taste, aromatic, recalling tarragon.

This plant must not be confused with the British Wild Basil (*Calamintha Clinopodium*), as illustrated.

BAYBERRY.

Myrica cerifera, Linn.

Fam. *Myricaceæ*.

Syn.—Candleberry, Waxberry, Wax Myrtle.

Part used—Bark.

Action—A powerful stimulant, astringent, and tonic. If not absolutely the most useful article in botanic practice, it is certainly nearly so. It enters largely into many of the compound powders and forms the basis of the celebrated composition powder. In cases of coldness of the extremities, chills, clamminess, &c., it will, combined with Cayenne, cause that action in the system which generates heat and induces perspiration. For canker of the stomach and bowels it is invaluable, being an effectual deobstruent and cleanser. The powdered bark is generally used in an infusion of 1 ounce to 1 pint of boiling water. To promote heat it should be drunk warm. The powder may also be added to poultices, as it has a very healing and cleansing action on all scrofulous ulcers, sores, &c.

Preparations—Powdered bark · Dose, $\frac{1}{2}$ –1 drachm. Fluid extract : Dose, $\frac{1}{2}$ –1 drachm. Myricin · Dose, 1–3 grains

Distinctive character—Bark in short quilled pieces about $\frac{1}{16}$ inch thick, with a white, peeling epidermis, covering a red-brown hard layer beneath, fracture granular, slightly fibrous on the inner surface. Taste, astringent, bitter, and pungent. Odour, slightly aromatic.

BEARSFOOT, AMERICAN.*Polymnia Uvedalia*, Linn.Fam. *Compositæ*.

Syn.—Uvedalia, Leaf Cup, Yellow Leaf Cup.

Part used—Root.

Action—Stimulant, laxative, anodyne. Has been used with good effect in congestive states of liver and spleen; also in inflamed glands and dyspepsia from these causes. Used externally as a hair tonic or in form of an ointment.

Preparation—Fluid extract : Dose, 15–60 drops.

Distinctive character—Root greyish brown, finely furrowed longitudinally, from $\frac{1}{4}$ – $\frac{1}{2}$ inch in diameter with a tough coarsely fibrous fracture, the woody column splitting off into laminae, the bark thin, brittle, easily scaling off. Taste, saline, faintly bitter Odour, none.

This is a N. American plant and must not be confused with English Bearsfoot (*Helleborus Fœtidus*).

BEEBEERU BARK.*Nectandra Rodiei*.Fam. *Lauracæ*.

Syn.—Greenheart Bark, Bibiru Bark.

Action—Stomachic and tonic. Dose, $\frac{1}{4}$ – $\frac{1}{2}$ drachm.

Distinctive character—Flat, heavy, hard pieces 10–15 mm. long, 5–10 mm. thick, grey brown in colour with shallow depressions on the other portions. Inner portion coarsely striated. Granular fracture

Imported from British Guiana.

BELLADONNA.*Atropa Belladonna*, Linn.Fam. *Solanacæ*.

Syn.—Deadly Nightshade, Dwale.

Parts used—Root, leaves.

Action—Narcotic, diuretic, sedative, mydriatic. Used as an anodyne in febrile conditions, night-sweats,

coughs, whooping cough, &c., also in spermatorrhœa. Suppresses glandular secretions. Used externally in gouty and rheumatic inflammations.

Preparations—**LEAVES**—Bellad. Pulv. B.P. : Dose, $\frac{1}{4}$ –3 grains. Emp. Bellad. Vir. B.P.C. Ext. Bellad. Sicc. B.P. : Dose, $\frac{1}{4}$ –1 grain. Ext. Bellad. Vir. B.P.C. : Dose, $\frac{1}{4}$ –1 grain. Glycer. Bellad. Tinct. Bellad. B.P. : Dose, 5–30 minims. **ROOT**—Chlorof. Bellad. B.P.C. Collod. Bellad. B.P.C. Emp. Bellad. B.P. Ext. Bellad. Liq. B.P. : Dose, $\frac{1}{4}$ –1 minim. Lin. Aconit. Oleo B.P.C. Lin. Bellad. B.P. Lin. Bellad. c Chlorof. B.P.C. Pig. Aconit. Co. B.P.C. Supp. Bellad. B.P. Ung. Bellad. B.P.C.

Distinctive character—Root pale brown, $\frac{1}{8}$ – $\frac{3}{4}$ inch in diameter, 6 or more inches long, with short transverse scars, easily abraded by the finger nail, showing white, starchy tissue beneath. Transverse section whitish, with a thickish bark, and woody bundles scattered through the central column, but more crowded near the bark.

Leaves ovate, not toothed, thin and brittle when dry, showing under a lens numerous minute, pale, prominent points on the surface, corresponding to cells filled with sandy crystals of calcium oxalate.

The plant should be collected when in flower. The larger stalks should be rejected, as they are weak in alkaloids.

BENNE.

Sesamum indicum, Linn.

Fam. *Pedaliaceæ*.

Syn.—Sesam, Gingelly, Sesame.

Parts used—Leaves, seeds.

Action—Demulcent, laxative. The fresh leaves are very useful in catarrhal affections, diarrhœa, dysentery, affections of kidney and bladder. The Indian natives steep a leaf or two in water and drink the resulting mucilage freely. Externally they also apply this in



BASIL, WILD
(See page 27)



BEARSFOOT, British
(See page 29)



BELLADONNA
(See page 29)



BILBERRIES
(See page 34)

ophthalmic and cutaneous complaints. The seeds contain an oil which is used in the same manner as Olive Oil and has a laxative effect. Given internally this oil is said to promote menstruation.

Distinctive character—Leaves alternate, ovate, or lanceolate, the lower ones three-lobed, prominently often veined beneath. Taste, mucilaginous. Seeds $\frac{3}{16}$ inch long, $\frac{1}{8}$ inch broad, flat, obovate, usually white or black, but there are yellowish and reddish varieties. Taste, mucilaginous, oily.

BENZOIN.

Styrax Benzoin, Dry.

Fam. *Styracææ*.

Syn.—Gum Benzoin, Gum Benjamin, Sumatra Benzoin, Palembang Benzoin.

Part used—Resin.

Action—Stimulating, expectorant. Used as part of Friar's Balsam in coughs, bronchitis, and externally applied to wounds, sores, &c. Contains Benzoic Acid, and thus enters into the preparation of Paregoric.

Preparations—Acid Benzoic B.P. (prepared from Palembang or synthetically): Dose, 5-15 grains. Collod. Stypt. B.P.C. Lot. Benzoin B.P.C. Nebula Benzoin Co. B.P.C. Tinct Benzoin B.P.C.: Dose, $\frac{1}{2}$ -1 fluid drachm. Tinct. Benzoin Co. B.P.: Dose, $\frac{1}{2}$ -1 fluid drachm. Troch. Acid Benz. B.P.C. Tincture U.S.P. XI (1 in 5, double B.P. strength): Dose, 15 minims. Tinct. Benz. Co. U.S.P. XI (similar to B.P. preparation).

Distinctive character—Sumatra Benzoin, from *Styrax Benzoin*, is the only official variety. It is obtained by making triangular wounds in the tree, from which the sap exudes. The first flow forms the almonds of Benzoin followed by greyish-brown resinous lumps; these are mixed in various proportions and pressed into a solid mass. Benzoin should not contain more than 20 per cent. of substances insoluble in 90 per cent. alcohol and not more than 2 per cent. ash.

Other varieties: Siam Benzoin, *Styrax Tonkinense*, Craib. Generally occurs in separate tears coated with a reddish brown resin and has an agreeable odour of vanilla. It is used principally in perfumery and fumigating pastilles. Palembang Benzoin is derived from *Styrax Benzoin*, but is an inferior and cheaper quality. It consists principally of the greyish-brown resin.

BERBERIS.

Berberis aristata.Fam. *Berberidacæ*.

Action—Used in India as a bitter tonic in intermittent fevers. Similar in action to Golden Seal. Dose, 10-60 grains.

Description—Greyish brown strips of the dried stem, greenish yellow internally—generally covered with moss or lichens. Conspicuous yellow medullary rays.

Preparation—Tinct. Berber B.P.C. Dose, $\frac{1}{2}$ –1 fluid drachm.

BETEL.

Piper Betel, Linn.

Syn.—*Chavica Belle*, Miq. *Artanthe hexagona*, Miq.

Action—Astringent. Largely used by Indian natives, who chew the leaves with Areca Nuts mixed with Lime and Tobacco as a stimulant and as a preventive of worms.

Distinctive character—Leaves cordate below, called female, oval, tapering above, with 5-7 radiating ribs, $2\frac{1}{2}$ – $3\frac{1}{2}$ inches long, and about 2 inches broad, dark green above, paler below, called male, with numerous transparent, minute, reddish points due to oil cells. When chewed the leaves produce a flow of saliva. Taste, feebly aromatic.

The lower or female leaves are generally used and exported.

BETH ROOT. *Trillium pendulum*, Willd. and
 Trillium erectum, Linn.

Fam. *Liliaceæ*.

Syn.—Birthroot, Lamb's Quarter.

Part used—Root.

Action—Astringent, pectoral, alterative, and tonic. Will be found of use in all cases of internal bleeding, profuse menstruation, and pulmonary complaints. In female disorders it is especially valuable both as a medicine and as an enemata. It acts as a general astringent to the uterine organs and should be used in fluor albus, menorrhagia, &c. The infusion, made by pouring 1 pint of boiling water on a tablespoonful of powder, should be drunk freely in most cases when it is required as an astringent, in doses of a wineglassful or more. In coughs, &c., 10-20 grains of powdered root may be taken in a little water three times a day. A good antiseptic poultice may be made of equal parts of powdered Beth Root and Slippery Elm with a small quantity of powdered Lobelia Seed.

Preparations—Powdered root : Dose, 10-20 grains. Fluid extract : Dose, 1-2 drachms. Trilliin : Dose, 2-4 grains.

Distinctive character—Rhizome dull brown, sub-conical, more or less compressed, 1½-2 inches long, and ¾-1 inch in diameter, transversely ringed with numerous oblique lines, and with numerous slender transversely wrinkled rootlets on the lower surface. Transverse fracture, whitish, horny, and starchy. Taste, sweet, bitterish, slightly astringent, and acrid. Flavour, strong, recalling that of *podophyllum*.

BILBERRIES. *Vaccinium Myrtillus*, Linn.
 Fam. *Vacciniaceæ*.

Syn.—Huckleberries, Whortleberries, Hurtleberries.

Part used—Ripe fruits.

Action—Diuretic, refrigerant, astringent. The fruit may be eaten by itself or with milk and sugar as a

cooling nutriment. The dried berries are used in medicine and have proved of much benefit in dropsy and gravel. A decoction of 1 ounce in a pint of boiling water is used in tablespoonful to wineglassful doses in diarrhœa, dysentery, and derangements of the bowels. It has been found particularly useful during typhoid epidemics in the following form: 1 pound Bilberries, $\frac{1}{4}$ pound Cream of Tartar, 1 gallon water; boil for twenty minutes, strain and make up to 1 gallon with water. Drink a teacupful several times a day. Externally the decoction is used as a gargle, as a wash for sores, wounds, and ulcers, and as an injection in leucorrhœa.

Preparation—Fluid extract: Dose, $\frac{1}{2}$ –2 drachms.

Distinctive character—Berries blue-black, globular, with the calyx ring at the apex. Contains numerous small oval seeds. Taste, sweet acidulous. Odour, slightly valerianic.

BIRCH, EUROPEAN.

Betula alba, Linn.

Fam. *Betulaceæ*.

Syn.—White Birch.

Parts used—Bark and leaves.

Action—Bitter, astringent. The bark by destructive distillation yields Birch Tar, which is used in preparing Russian leather. From this tar a volatile oil—*Oleum Rusci*, or *Oleum betulinum*—is distilled. This oil has been used successfully internally for gonorrhœa, but is most highly esteemed as a remedy in cutaneous affections, especially those of eczematous nature.

Distinctive character—Leaves stalked, rhomboidal, ovate, pointed, shiny, biserrate at the margin, about 1–1 $\frac{1}{2}$ inch long, and $\frac{3}{4}$ –1 inch broad. Young bark having externally white papery layers marked with linear brown lenticels; inner dark brown, granular, with numerous hard white points, the old bark rough blackish brown outside, with white lines showing in the brown transverse section. Fracture short. Taste, astringent and bitter.

BIRTHWORT.*Aristolochia longa*, Linn.Fam. *Aristolochiaceæ*.

Part used—Root.

Action—Aromatic, stimulant. Used in rheumatism and gout.

Preparation—Powdered root : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Root somewhat cylindrical, 1 inch or more in diameter, externally pale brown, smooth, striated, or warty. Transverse fracture whitish, with brown dots due to vascular bundles containing oleo-resin. Taste, sweetish, then acrid and disagreeable.

BISTORT.*Polygonum bistorta*, Linn.Fam. *Polygonaceæ*.

Syn.—Snakeweed, Adderwort.

Part used—Root.

Action—Astringent. Used chiefly in hæmorrhages and mucous discharges as a medicine, injection, or a gargle.

Preparations—Powdered root : Dose, $\frac{1}{4}$ – $\frac{1}{2}$ drachm in water. Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.Distinctive character—About 2 inches long and $\frac{2}{3}$ inch broad, twice bent as in the letter S, red-brown, depressed or channelled on the upper surface and transversely striated, convex, and with depressed root scars below, fracture short, light reddish brown, bark thick, ring of woody wedges small, enclosing a pith equal in thickness to the bark. Taste, astringent. Odour, none.**BITTER APPLE.** *Citrullus Colocynthis*, Schrad.Fam. *Cucurbitaceæ*.

Syn.—Colocynth Pulp, Bitter Cucumber.

Part used—Peeled fruit from Syria and Egypt.

Action—Cathartic, irritant, drastic purgative. Seldom used alone, mostly in conjunction with other laxatives

and anodynes, such as Aloes, Henbane, &c. Useful in constipation, and in painful menstrual complaints, also in dropsy. As a rule it is taken in pill form.

Preparations—Powdered pulp: Dose, 2-5 grains. Fluid extract: Dose, 5-10 drops. Ext. Colocynth Co. B.P.: Dose, 2-8 grains. Powdered Ext. Colocynth: Dose, $\frac{1}{2}$ grain. Pil. Colocynth Co. B.P.C.: Dose, 1-2 pills. Colocynth also enters into the composition of many B.P. and B.P.C. pills and tablets.

Distinctive character—Pulp yellowish white, spongy, very bitter, sometimes containing dark-greenish oval flattened seeds, or immature whitish ones.

BITTER ROOT.

Apocynum androsæmifolium, Linn.

Fam. *Asclepiadaceæ*.

Syn.—Dogsbane, Milkweed.

Part used—Root.

Action—Emetic, cathartic, tonic, and diuretic. Being a cardiac stimulant it is of great value in cardiac dropsy in doses of 5-15 grains; as a general tonic in dyspepsia in powders of 4 grains three times a day. It is said to be useful in cases of chronic Bright's disease.

Preparations—Powdered root: Dose, 4-30 grains. Fluid extract: Dose, 10-30 drops.

Distinctive character—Root $\frac{1}{8}$ - $\frac{1}{4}$ inch thick, with pale brown transversely wrinkled and cracked bark, half as thick as the white woody centre, and readily separating from it, with groups of stone cells in the outer bark. Taste, bitter and astringent, "

The bark of *Apocynum cannabinum* is often sold for it, but has a yellowish wood, is longitudinally wrinkled, and has no groups of stone cells in the outer bark.

BITTERSWEET.*Solanum Dulcamara*, Linn.Fam. *Solanaceæ*.

Syn. — Woody Nightshade, Violet Bloom, Scarlet Berry, Felonwood, Felonwort, Dulcamara.

Part used—Twigs.

Action—Narcotic, resolvent, diuretic. Promotes all secretions and is used in rheumatism, obstinate cutaneous eruptions, scrofula, &c. A decoction is made of 10 drachms in 2 pints of boiling water, boiled down to 1 pint, and taken in doses of $\frac{1}{2}$ –2 ounces with an equal quantity of milk.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –2 drachms.

Distinctive character—The year-old greenish-brown shoots, which are the part used, are nearly cylindrical or indistinctly angular, about $\frac{1}{8}$ inch thick, slightly furrowed longitudinally, or sometimes warty, and usually cut into short pieces internally hollow or partially filled with pith. The transverse section shows a green layer in the bark and a radiate ring of wood, or more than one ring in older stems. Taste, at first bitter (more so in the spring) and then sweet. Odour, unpleasant when fresh, but lost in drying.

Root bark thin, tough externally, blackish or blackish grey internally, pale brown, fibres of inner bark forming wide wedges. Taste, very astringent, slightly bitter. Odour, none.

BITTERSWEET, AMERICAN.*Celastrus scandens*.

Syn.—Waxwork, False Bittersweet.

Parts used—Root, bark.

Action—Alterative, diuretic, and diaphoretic. Used in liver affections, leucorrhœa, rheumatism, and obstructed menstruation

Dose of the decoction (1 oz. to the pint) : 2-4 ounces three times a day ; solid extract : 5-10 grams. This plant has been confounded with *Solanum dulcamara*, or Bittersweet, but is essentially different in appearance and therapeutic action.

BLACKBERRY, AMERICAN. *Rubus villosus*, Ait.
Fam. *Rosaceæ*.

Syn.—Bramble.

Parts used—Root, leaves.

Action—Astringent, tonic. A valuable remedy for diarrhoea, dysentery, &c. A preparation called Blackberry Cordial contains the properties named above combined with aromatics. The root is the most astringent. The infusion of 1 ounce of root or leaves to 1 pint of water is taken in wineglassful doses.

Preparations—Fluid extract : Dose, $\frac{1}{2}$ -1 drachm. Fluid extract, root, U.S.P. : Dose, 15 drops. Syrup U.S.P. : Dose, 1 drachm.

The root bark of *R. trivialis*, Michx., and *R. Canadensis*, Linn., are also used in the United States of America, and the leaves of *R. fruticosus*, Sm., in Europe, of which an illustration is given.

BLACK CURRANT. *Ribes nigrum*, Linn.
Fam. *Saxifragaceæ*.

Parts used—Leaves, fruit.

Action—Leaves, diuretic, refrigerant, detergent. Very useful in febrile and inflammatory diseases, in hoarseness and affections of the throat. The infusion of 1 ounce in 1 pint of boiling water is taken in teacupful doses. The fresh fruit is used for jams, jellies, &c., and forms an excellent basis for medicated lozenges. The fruit is used principally as a flavouring agent.

Preparation—Syr. *Ribes Nig.* B.P.C. (fruit) : Dose, $\frac{1}{2}$ -1 drachm.

In a like manner, the fruit of the Red Currant, *Ribes rubrum*, Linn., is used as a flavouring agent, the Syr. *Ribes Rub* B.P.C. being made from the juice of this fruit

Distinctive character—Leaves palmate, stalked, with scattered yellow glands on the under surface, about 2 inches in diameter, with three to five pointed, serrate, angular lobes. Odour, characteristic

BLACK HAW. *Viburnum prunifolium*, Linn.

(And other species) Fam. *Caprifoliaceæ*.

Syn.—Stagbush, American Sloe

Part used—Bark of root

Action—Uterine tonic, sedative, nervine, anti-spasmodic. Largely used for preventing miscarriage, in which cases it should be given four or five weeks previous to the expected event. It checks pain and bleeding, and is an excellent remedy for dysmenorrhœa and the after pains of childbirth. The infusion of 1 ounce to 1 pint of boiling water is taken in tablespoonful doses

Preparations—Powdered bark. Dose, $\frac{1}{4}$ – $\frac{1}{2}$ drachm. Elixir Viburn B.P.C. Dose, $\frac{1}{2}$ –2 fluid drachms. Elixir Viburn et Hydrast B.P.C. Dose, $\frac{1}{2}$ –1 fluid drachm. Ext Viburn B.P.C. Dose, 3–8 grains. Ext Viburn. Liq B.P.C. Dose, $\frac{1}{2}$ –2 fluid drachms. Liq Cauloph et Pulsat Co B.P.C. Dose, 1–2 fluid drachms

Distinctive character—Young bark in thin quilled pieces, glossy purplish brown with scattered warts. Old bark greyish brown, inner surface white and smooth, the thin corky layer easily separable from the green layer. Fracture short. Taste, astringent and bitter. Odour, slightly valerianic. The root bark is cinnamon-coloured and very bitter

The bark of a species of *Acer* is sometimes substituted for this bark.



BISTORT

(See page 36)



BLACKBERRY, English

(*Rubus fruticosus*)

(See page 39)



BLUE MALLOW

(See page 44)



BORAGE

(See page 46)

BLACK ROOT.*Leptandra Virginica*, Nutt.Fam. *Scrophulariaceæ*.

Syn.—Culver's Root, Culver's Physic, Physic Root, *Veronica Virginica*, L.

Part used—Root.

Action—Cathartic, diaphoretic, tonic, antiseptic, Used principally for its cathartic effect, as it acts with certainty and without griping. In fevers it is invaluable as a cathartic, purifying the blood and removing all morbid obstructions in a mild natural manner. It is said to act especially on the intestines, and therefore valuable in chronic constipation and intestinal indigestion. May be advantageously combined with other medicines.

Preparations—Ext. Leptand. B.P.C. (Leptandrin): Dose, $\frac{1}{2}$ –2 grains. Powdered Leptandra: Dose, $\frac{1}{4}$ –1 drachm. Fluid extract. Dose, $\frac{1}{2}$ –1 fluid drachm. Tab. Leptand. Co. B.P.C. Dose, 1–3 tablets.

Distinctive character—Rhizome about $\frac{1}{4}$ inch in diameter, showing stem bases at intervals of $\frac{1}{2}$ –1 $\frac{1}{2}$ inch, blackish brown, with transverse scars in rings $\frac{1}{8}$ – $\frac{1}{4}$ inch apart, and chiefly on the lower surface. Rootlets wiry, brittle, having a short horny fracture and a white, woody central cord. Taste, bitterish.

BLADDERWRACK.*Fucus vesiculosus*, Linn.Fam. *Fucaceæ*.

Syn.—Bladder Fucus, Seawrack, Kelpware, Seaweed.

Part used—Plant.

Action—Deobstruent, antifat. Has been employed with success in obesity. The infusion of 1 ounce to 1 pint of boiled water is taken in wineglassful doses, or better in pill form. It influences the kidneys and acts as an alterative.

Preparations—Fluid extract: Dose, $\frac{1}{2}$ –4 drachms. Solid extract: Dose, 15–30 grains. The doses should be gradually increased.

Distinctive character—Fronde flat, forked, blackish, about $\frac{1}{2}$ inch broad and 1 or 2 feet long, with a distinct midrib and oval bladders, usually in pairs. Taste, mucilaginous and saline. Odour, like seaweed.

Fucus serratus has no air vesicles, whilst *Fucus nodosus* has the air vessels single—not in pairs.

BLOOD ROOT. *Sanguinaria canadensis*, Linn.

Fam. *Papaveraceæ*.

Part used—Root.

Action—Stimulant, tonic, expectorant. Of great value in chest diseases, bleeding of the lungs, pneumonia, chronic bronchitis, &c. In whooping cough and croup it acts advantageously, and should be given until vomiting results. As an external remedy the powdered root or tincture acts energetically in cases of fungoid tumours, ringworm, &c. In polypus of the nose it should be used as snuff. Large doses will produce narcotic effects.

Preparations—Powdered root: Dose, 10–30 grains. Tincture: Dose, $\frac{1}{2}$ –2 drachms. Tincture U.S.P.: Dose, 15 drops. Fluid extract: Dose, 10–30 drops. Solid extract (alc.): Dose, 5–8 grains. Sanguinarin: Dose, $\frac{1}{4}$ –1 grain.

Distinctive character—The rhizome is usually about 2 or more inches long and nearly $\frac{1}{2}$ inch in diameter, reddish brown, and longitudinally wrinkled. Fracture short, transverse section whitish, with numerous small red resin cells, or sometimes wholly suffused with red. Taste, bitter and acrid. Odour, heavy.

BLUE FLAG.*Iris versicolor*, Linn.Fam. *Iridaceæ*.

Syn.—Water Flag, Poison Flag, Flag Lily, Liver Lily, Snake Lily.

Part used—Root.

Action—Alterative, antisyphilitic, diuretic, cathartic, stimulant. This is chiefly used for its alterative properties, and enters into many compounds for purifying the blood and for venereal affections. It is also valuable in liver complaints, fluor albus, and dropsy.

Preparations—Powdered root : Dose, 20 grains as a cathartic. Fluid extract : Dose, $\frac{1}{2}$ –1 drachm. Solid extract : Dose, 10–15 grains. Tincture : Dose, 1–3 drachms. Irisin or Iridin : Dose, 1–3 grains.

Distinctive character—Rhizome with annular joints 2 or more inches long, about $\frac{1}{2}$ inch in diameter, cylindrical, becoming compressed towards the larger end where the cup-shaped stem scar is seen, with numerous rings formed of leaf scars above, and with scars of rootlets below. Fracture short, brownish, the vascular bundles scattered through the central column. Taste, acrid and nauseous. Odour, none.

BLUE MALLOW.*Malva sylvestris*, Linn.Fam. *Malvaceæ*.

Syn.—Common Mallow, Mauis.

Parts used—Flowers, herb.

Action—Demulcent, mucilaginous, pectoral. The infusion is a popular cure for coughs, colds, &c.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –2 drachms.

Distinctive character—Leaves stalked, roundish, five to seven-lobed, hairy with stellate hairs, veins prominent below. Flowers mauve coloured, with dark veins. Calyx with three separate outer bracts. Fruit many-celled, disciform, each cell one-seeded. Taste, mucilaginous. Odour, none.

BOLDO.*Peumus Boldus*, Molina.Fam. *Monimiaceæ*.**Syn.**—Boldu, *Boldea fragrans*, C. Gay.**Part used**—Leaves. Imported from Chili.**Action**—Diuretic and liver stimulant, antiseptic. Used chiefly in chronic hepatic torpor and dyspepsia. Is also given in catarrh of the bladder, gonorrhœa, &c. The virtues of the drug seem to be due to an essential oil.**Preparation**—Fluid extract : Dose, $\frac{1}{2}$ – $\frac{1}{4}$ drachm.**Distinctive character**—Leaves oval, shortly stalked, rather thick, rigid and brittle, recurved at the margin, about 2 inches long and $1\frac{1}{4}$ inch wide, rough with points bearing stellate hairs. Taste, slightly lemony. Odour, recalling lemon and coriander.**BONESET.***Eupatorium perfoliatum*, Linn.Fam. *Compositæ*.**Syn.**—Thoroughwort, Indian Sage.**Part used**—Herb.**Action**—Diaphoretic, tonic, febrifuge, expectorant, laxative. Will be found a certain remedy in all cases of fever and influenza. In many cases no other medicine will be

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commended in catarrh and skin diseases. An infusion of 1 ounce to 1 pint of boiling water may be taken in wineglassful doses, hot or cold. For colds and to produce perspiration it should be given hot, and as a tonic, cold.

Preparations—Powdered herb Dose, 10–20 grains. Fluid extract : Dose, $\frac{1}{2}$ –1 drachm. Solid extract : Dose, 5–10 grains. Eupatorium : Dose, 1–3 grains.

Distinctive character—Leaves opposite, 4-6 inches long, lanceolate, tapering above to a narrow point, united at their base, crenate at margin, reticulated above, with minute, shining yellow resin dots beneath. Taste, astringent and persistently bitter. Flavour, slightly aromatic.

BORAGE.

Borago officinalis, Linn.

Fam. *Boraginaceæ*.

Syn.—Burrage.

Part used—Leaves.

Action—Diuretic, demulcent, emollient. Used in France for fevers and pulmonary complaints. For internal use an infusion is made of 1 ounce of leaves to 1 pint of boiling water and taken in wineglassful doses. Externally employed as a poultice for inflammatory swellings.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Leaves oval, pointed, 3 or more inches long, and about $1\frac{1}{2}$ inch broad, the lower stalked, rough, with stiff one-celled hairs on the upper surface and on the veins below, the margin entire but wavy. Flowers blue, star-shaped, with central appendages, the anthers forming a cone in the centre. Fruit of four brownish black nutlets, hollowed at base. Taste of leaves, cucumber-like and saline. Odour, none.

BOX LEAVES.

Buxus sempervirens, Linn.

Action—Used as a blood purifier. A good tonic for debility, jaundice. A popular veterinary medicine to improve the general condition. Dose, 20-60 grains.

BOXWOOD, AMERICAN. *Cornus Florida*, Linn.Fam. *Cornaceæ*.

Syn.—American Dogwood, Dog Tree.

Parts used—Bark, root bark.

Action—Tonic, astringent, stimulant. Used with advantage in all fevers, and forms an excellent substitute for Peruvian Bark, also given for headaches and exhaustion. A decoction of 1 ounce of bark in 1 pint of water is taken in wineglassful doses.

Preparations—Powdered bark. Dose, $\frac{1}{3}$ –1 drachm. Fluid extract: Dose, $\frac{1}{2}$ –1 drachm. Cornin: Dose, 2 grains.

Distinctive character—Bark in slightly curved pieces averaging about 2 inches long and $\frac{1}{2}$ –1 inch wide, greyish and scaly, or, where the outer layer is removed, pale brown and irregularly cracked longitudinally; inner surface pinkish brown, rough with minute linear prominences. Transverse fracture with somewhat distant medullary rays and raised groups of stone cells. Taste, astringent, bitter. Odour, none.

BROOKLIME.*Veronica Beccabunga*, Linn.Fam. *Scrophulariaceæ*.

Syn.—Water Pimpernel.

Part used—Herb.

Action—Alterative, diuretic. Is given in scurvy, impurity of blood, &c. An infusion of the leaves of 1 ounce to 1 pint of boiling water is taken in wineglassful doses frequently.

Distinctive character—Leaves oval, obtuse, stalked, crenate-serrate, opposite, not hairy. Flowers blue, with two stamens, on short, axillary, loose racemes. Fruit two-celled, notched at the apex, roundish. Taste, bitter, slightly acrid. Odour, none.

BROOM.*Cytisus scoparius*, Linn.Fam. *Leguminosæ*.

Syn.—Broomtops, Irish Broom. *Spartium scoparium*, Linn. Besom, He-Broom (no flowers); She-Broom (with flowers).

Part used—Tops.

Action—Diuretic, cathartic. Broom in combination with Agrimony and Dandelion Root is an excellent remedy for dropsy and liver troubles.

Preparations—Fluid extract: Dose, $\frac{1}{2}$ –1 drachm. Juice B.P.: Dose, 1–2 drachms. Infusion B.P.: Dose, 1–2 ounces.

Distinctive character—Stem angular, five-sided, slightly winged, dark green, branching at an acute angle, $\frac{1}{8}$ – $\frac{1}{2}$ inch in diameter. Pods flat, blackish, $1\frac{1}{2}$ inch long and $\frac{1}{4}$ inch wide. Flowers yellow, brown when dry, papilionaceous. Taste, bitterish, unpleasant. Odour, none.

BROOM-CORN.*Sorghum vulgare*, Pers.Fam. *Graminaceæ*.

Syn.—Sorghum Seeds, *Sorghum saccharatum*, Moench.

Part used—Seeds.

Action—Diuretic, demulcent. The American negroes make a decoction of 2 ounces of seeds with a quart of water, boiled down to a pint, and take this as a remedy for urinary, bladder, and kidney complaints. This drug is entirely different from Broom (*Cytisus scoparius*) and should not be confounded with it.

Distinctive character—Seeds usually white, known in England as Darri, or Durra, about $\frac{1}{8}$ inch in diameter, rounded, slightly compressed, white and starchy within.



BROOKLIME

(See page 47)



BROOM

(See page 48)



BRYONY, BLACK

(See page 50)



BRYONY, WHITE

(See page 50)

BRYONY, BLACK.*Tamus communis*, Linn.Fam. *Dioscoreaceæ*.

Syn.—Blackeye Root.

Part used—Root.

Action—Rubefacient, diuretic. The fresh root is scraped and the pulp rubbed into parts affected by gout, rheumatism, or paralysis. It is also reputed as a diuretic. Black Bryony is a popular remedy for removing discolouration caused by bruises, hence its name—Blackeye Root.

Preparation—Tincture : 1–5 minims.

Distinctive character—Root nearly cylindrical, 1–1½ inch in diameter, 3–4 inches long, or more, with scattered wiry rootlets, blackish brown externally, whitish within. Usually sold fresh, and, when scraped, yielding a slimy paste. Taste, acrid. Odour, slightly earthy. Leaves shiny and heart-shaped. Berries egg-shaped, deep crimson colour. Flowers green with six petals.

BRYONY, WHITE.*Bryonia dioica*, Jacq.*Bryonia alba*, Linn.Fam. *Cucurbitaceæ*.

Syn.—Bryonia, English Mandrake, Wild Vine, Mandragora.

Part used—Root.

Action—Irritating, hydrogogue, cathartic. Useful in small doses for cough, influenza, bronchitis, pneumonia, &c. Valuable in cardiac disorders caused by rheumatism and gout, also in malarial and zymotic diseases. Large doses should be avoided.

Preparations—Fluid extract : Dose, ½–1 drachm.
Bryonin : Dose, ½–2 grains.

Distinctive character—Root very large, 1–2 feet long or more, branched, 1–3 inches in diameter, white both externally and internally. Usually sold dry, in circular slices ¼–½ inch thick. Transverse section



BUGLE

Ajuga Reptans



showing concentric rings and radiating lines of porous vascular bundles. Taste, acrid and bitter. Odour, none. Leaves vine-shaped, curling tendrils. Berries green at first, changing to orange and red.

Offered by gardeners as Mandrake Root (see *Podophyllum*).

The *Bryonia alba*, Linn., used by Homœopaths, which is not wild in England, has globular black berries. *Bryonia dioica*, Jacq., has globular red berries. Both are climbing plants with palmate rough leaves and small greenish white unisexual flowers (five petals).

BUCHU. *Barosma betulina*, Bart. and Wendl.
Fam. *Rutaceæ*.

Syn.—*Diosma betulina*, Thunb.

Part used—Leaves. Imported from South Africa.

Action—Diuretic, diaphoretic, stimulant. It exerts a direct effect on the urinary organs, in all affections of which it will be found beneficial. In gravel, inflammation, and catarrh of the bladder it is specially useful. The infusion (B.P.) of 1 ounce of leaves to 1 pint of boiling water is taken in wineglassful doses three or four times a day.

Preparations—Fluid extract Dose, $\frac{1}{2}$ –1 drachm.
Infusion B.P. : Dose, 1–2 ounces. Tincture B.P. . Dose, $\frac{1}{2}$ –1 drachm. Solid extract . Dose, 5–15 grains. Barosmin : Dose, 2–3 grains.

Distinctive character—The principal variety grown is *barosma betulina* or Round Buchu. These have a very characteristic rhomboid—obovate outline with a blunt recurved apex, and are the finest for medicinal use. The next in order of popularity is *Barosma crenulata* or Oval Buchu. The margin of the leaf is crenulated and the apex although blunt is not recurved. The third variety, *Barosma serratifolia*, or Long Buchu, is readily recognised by the serrate margin of the leaf and truncate apex. This variety is falling into disuse as it only contains about half the amount of volatile oil compared with either the Round or Oval Buchu.

BUCKBEAN. *Menyanthes trifoliata*, Linn.

Fam. *Gentianaceæ*.

Syn.—Bogbean, Marsh Trefoil.

Part used—Herb.

Action—Tonic, deobstruent. A splendid bitter tonic, which will render great service in cases of rheumatism, scurvy, and skin diseases. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses frequently repeated.

Preparation—Fluid extract : Dose, 10-40 drops.

Distinctive character—Leaves thin, brittle, with long stalks and three obovate leaflets which are about 2 inches long and 1 inch broad, and entire at the margin. Taste, very bitter. Odour, none.

BUCKTHORN. *Rhamnus catharticus*, Linn.

Fam. *Rhamnaceæ*.

Syn.—*Baccæ Spine-cervinæ*.

Part used—Berries.

Action—Largely used in veterinary practice as a laxative. The juice is expressed from the fresh ripe berries and this is used to make the syrup.

Preparation—Syr. Rham. B.P.C. : Dose, $\frac{1}{2}$ -1 drachm.

Distinctive character—The berries are used for expressing the juice, with which Syrup of Buckthorn is made. When fresh they are globular, about $\frac{1}{4}$ inch in diameter, with the remains of a calyx beneath; they contain four deeply-grooved seeds, each enclosed in a parchment-like endocarp. The juice, at first greenish, becomes purplish brown on keeping. Taste, bitter and acrid. Branches of the plant have terminal thorns. Leaves egg-shaped, sharply serrated and prickly.



BUCKBEAN

(See page 52)



BUCKTHORN

(See page 52)



BUCKTHORN, ALDER

(See page 52)



BUGLE

(See page 52)

BUCKTHORN, ALDER. *Rhamnus Frangula*, Linn.

Fam. *Rhamnaceæ*.

Part used—Bark.

Action—Tonic, laxative, cathartic. The dried seasoned bark, from one to two years old, should only be used, as the freshly-cut bark causes violent griping pains, emesis, and nausea. It is chiefly used as a remedy for chronic constipation, in small doses repeated three to four times daily. The decoction of 1 ounce of bark in a quart of water boiled down to a pint is taken in table-spoonful doses.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –2 drachms.

Distinctive character—Bark in thin quilled pieces, greenish black externally, with numerous elongated whitish transverse marks (lenticels). When abraded with the nail or a knife a crimson layer appears beneath the epidermis. Inner surface brownish yellow. Fracture fibrous. Taste, sweetish, then bitter. Odour, none. Branches of the plant are thornless. Leaves smooth and entire.

BUGLE.

Ajuga reptans, Linn.

Fam. *Labiataæ*.

Syn.—*Bugula*, Common Bugle.

Part used—Herb.

Action — Bitter, astringent, aromatic. Has been employed in hæmorrhages, biliary disorders, and consumption.

Dose of infusion (1 ounce to 1 pint), a wineglassful frequently.

Distinctive character—Stem smooth on two sides, downy on the other two, leaves opposite, oblong-obovate and obtuse, slightly toothed or almost entire at the

margin, having many-celled hairs on both surfaces, with nearly sessile glands. Flowers with stamens projecting, the upper lip being very short, bracts purplish. Taste, slightly aromatic and bitter. Odour, imperceptible.

BUGLEWEED.*Lycopus Virginicus*, Linn.Fam. *Labiatae*.

Syn.—Sweet Bugle, Water Bugle, Gipsywort.

Part used—Herb.

Action—*in coughs,*
infusion of
glassful doses frequently.

Preparations—Fluid extract: Dose, 10–30 drops.
Lycopin: Dose, 1–4 grains.

Distinctive character—Stem smooth, obtusely quadrangular. Leaves opposite, not hairy, short-stalked, elliptic-lanceolate, and toothed above, but entire and wedge-shaped at the base, gland-dotted beneath. Flowers in axillary clusters, calyx with four ovate obtuse teeth. Corolla four-lobed, purplish, with only two fertile stamens. Taste, bitter and slightly aromatic. Odour, mint-like.

BUGLOSS.*Echium vulgare*, Linn.Fam. *Boraginaceae*.

Syn.—Viper's Bugloss, Blueweed.

Part used—Herb.

Action—Diuretic, demulcent, expectorant. It relieves inflammatory pains, and is used in fevers and nervous complaints. The infusion of 1 ounce in 1 pint of boiling water is given in wineglassful to teacupful doses as required.

Distinctive character—Stems 1–2 feet high, with alternate leaves, both harsh, with rigid, bulbous hairs.

Leaves linear, lanceolate, often undulated. Flowers in curved clusters, irregularly tubular, funnel-shaped, blue. Fruit of four small seed-like pyrenes. Taste, mucilaginous. Odour, none.

The common Bugloss, *Lycopsis arvensis*, Linn., has small wheel-shaped blue flowers and wavy toothed leaves which also have rigid hairs with a bulbous base.

BURDOCK.

Arctium Lappa, Linn.

Fam. *Compositæ*.

Syn.—*Lappa*, *Lappa minor*, Hill, Thorny Burr.

Parts used—Root, herb, seeds (fruits).

Action—Alterative, diuretic, and diaphoretic. It is one of the finest blood purifiers in the herbal system, and should be used in all such cases alone or in conjunction with other remedies. Both root and seed may be taken as a decoction of 1 ounce to 1½ pint of water, boiled down to 1 pint, in doses of a wineglassful three or four times a day. The seeds are useful in kidney affections.

Preparations—Fluid extract root: Dose, ½–2 drachms. Solid extract: Dose, 5–15 grains. Fluid extract, seed: Dose, 10–30 drops.

Distinctive character—The root is usually cut up into pieces an inch or more long and about ¾ inch in thickness, brownish grey externally, shrunken and furrowed longitudinally, and whitish internally. The fracture is short and the transverse surface shows a thick bark about a quarter of the diameter of the root, and a central cylinder with a radiate structure, sometimes with cavities containing white remains of tissue. Taste, sweetish and mucilaginous.

Fruits, erroneously called seeds, brownish grey, wrinkled, about ½ inch long and ⅙ inch in diameter. The leaves are large, rhubarb-like in shape, whitish beneath. Flowerheads globular, with hooked scale-like bracts.



BUGLOSS, VIPER'S

(See page 55)



BURDOCK

(See page 56)



BURNET SAXIFRAGE

(See page 58)



BUTCHER'S BROOM

(See page 60)

BURNET, GREATER.

Sanguisorba officinalis, Linn.

Fam. *Rosaceæ*.

Syn.—Garden Burnet, Salad Burnet.

Part used—Herb.

Action—Astringent, tonic. Useful in hæmorrhages.

Distinctive character—Leaves pinnate, with about 13 opposite leaflets, rounded at the ends and sharply serrate, the teeth with slender thickened margins. Flowerheads purplish, oblong. Taste, astringent. Odour, none. Two or three fertile flowers at the top with protruding crimson hairs, with twenty or thirty barren flowers hanging down.

BURNET SAXIFRAGE.

Pimpinella Saxifraga, Linn.

Fam. *Umbelliferae*.

Syn.—Lesser Burnet, Saxifrage.

Parts used—Root, herb.

Action—Aromatic, carminative, stomachic.

Distinctive character—Root spindle-shaped, brownish, about 8 inches long, often crowned with several hollow stem bases, ringed above, and longitudinally wrinkled and tuberculated below. Fracture short and whitish. Bark thick, with resinous dots in radiating lines, central woody cylinder porous and radiate. Leaves pinnate, with oval serrate leaflets, nearly smooth or slightly hairy below. White flowers in globular heads with hard quadrangular calyx tube with netted veins. Taste, cucumber-like. Odour, none.

BURRA GOKEROO.

Pedallium Murex, Linn.

Fam. *Pedaliaceæ*.

Syn.—Barra Gokhru.

Part used—Seeds.

Action—Antispasmodic, demulcent, diuretic. Has been used in incontinence of urine, in gonorrhœa, gleet,

nocturnal emissions, impotence, and irritation of urinary organs. An infusion (1 in 20) should be taken each day in several doses.

Distinctive character—Fruits pale brown, calyx $\frac{1}{8}$ inch long and $\frac{1}{4}$ inch in diameter at the base, with four angular ridges having a short straight spine at the base of each, two-celled with four narrow elongated seeds. Taste, mucilaginous. Odour, none.

BURR MARIGOLD. *Bidens tripartita*, Linn.

Fam. *Compositæ*.

Syn.—Water Agrimony.

Part used—Whole plant.

Action—Astringent, diaphoretic, diuretic. This plant is particularly useful in dropsy, gout, and hæmaturia. It has been used with great success in various diseases of the respiratory organs where bleeding has occurred and also in uterine hæmorrhage. Dose, Infusion, 1 ounce to the pint, half-teacupful three or four times a day. The addition of a little Ginger will be helpful.

The flower heads are small and tawny brown, seeds numerous, four-cornered, with reflexed prickles.

BUSH TEA. *Cyclopia genistoides*.

Fam. *Leguminosæ*.

Syn.—S. African Rooibosch, or Boschori-Busch.

Largely used in South Africa as a substitute for ordinary tea. Does not contain Caffein

Description—Reddish brown stalks from $\frac{1}{2}$ –1 inch long, with the aroma and taste of tea.

A mixture of herbs containing Busch Tea and other ingredients is also prescribed for liver and kidney troubles.

BUTCHER'S BROOM. *Ruscus aculeatus*, Linn.Fam. *Liliaceæ*.

Syn.—Common Butcher's Broom, Kneeholm, Kneeholy, Pettigree, Sweet Broom.

Part used—Herb.

Action—Diaphoretic, diuretic, deobstruent, aperient. Will be found of use in jaundice, gravel, and female obstructions. The decoction is the usual form of administration.

Distinctive character—Stem erect, much branched. Leaves reduced to minute scales having in their axils egg-shaped cladodes, bearing a small greenish white flower in the centre which forms a round scarlet berry in September. This is the only British shrub among endogenous plants.

BUTTERBUR. *Petasites vulgaris*, Desf.Fam. *Compositæ*.

Syn.—Common Butterbur, *Tussilago*, *Pelasites*, Linn.

Part used—Root.

Action—Cardiac tonic, stimulant, diuretic. Has been in use as a remedy in fevers, asthma, colds, and urinary complaints, gravel, and plague. The decoction is taken warm in wineglassful doses frequently repeated.

Distinctive character—The rhizome occurs in pieces 2-4 inches long, and about $\frac{1}{2}$ inch in diameter, of a reddish brown or purplish brown colour, furrowed longitudinally, ringed with transverse scars at intervals of about $\frac{1}{2}$ inch. The transverse section shows a thin, dark, horny bark containing dark oil cells and a narrow ring of woody tissue surrounding a large, hard pith. Fracture short. The leaves are sometimes three feet broad. Taste, bitterish Odour, none.

BUTTERNUT.*Juglans cinerea*, Linn.Fam. *Juglandaceæ*.

Syn.—White Walnut, Oilnut.

Part used—Bark.

Action—Cathartic, tonic, vermifuge. A gentle purgative, which does not bind after operating. Is also a remedy for worms, especially in children. The solid extract is generally used either in pills or syrup. Four or five pills should be taken at night or a tablespoonful of syrup twice a day. The syrup is made by using $\frac{1}{2}$ ounce of extract to 8 ounces of simple syrup, beating them well together in a mortar.

Preparations—Fluid extract: Dose, 1-2 drachms. Solid extract: Dose, 5-10 grains. Juglandin: Dose, 2-5 grains.

Distinctive character—The inner bark, which is the part used, occurs in flat or curved pieces, $\frac{1}{8}$ – $\frac{1}{4}$ inch thick, but varying in length; it usually has the ends cut off obliquely. Fracture short, having a chequered appearance due to the brown fibres alternating with the white medullary rays and white cellular tissue. Taste, bitter and slightly acrid. Odour, feeble.

BUTTON SNAKEROOT. *Liatris spicata*, Willd.Fam. *Compositæ*.

Part used—Root.

Action—Diuretic, stimulant. It acts kindly on the stomach, and is of value in kidney diseases. Said to be beneficial in Bright's disease, and is used in conjunction with Unicorn Root in menstrual diseases. The decoction is very efficacious in gonorrhœa, gleet, &c. Taken in wineglassful doses three to four times daily.

Distinctive character—Rhizome $\frac{1}{2}$ inch or more in diameter, somewhat tuberculate, with several cup-shaped scars. Externally, brownish and slightly wrinkled; internally, whitish, speckled with dark grey dots, very tough. Taste, bitterish, faintly aromatic, somewhat resembling cedar.

CABBAGE TREE. *Andira inermis*, H., B. & K.Fam. *Leguminosæ*.

Syn.—*Geoffræya inermis*, S.W., Jamaica Cabbage Tree, Yellow Cabbage Tree, Worm Bark.

Part used—Bark

Action—Febrifuge, cathartic, vermifuge. Has proved an effectual anthelmintic. The infusion of 1 ounce in 1 pint of water may be taken in tablespoonful doses three to four times a day. Any unpleasant action may be obviated by Castor Oil, Lemon Juice or Warm Water.

Preparation—Fluid extract Dose, $\frac{1}{4}$ –1 drachm.

Distinctive character—In long flat pieces $\frac{1}{2}$ inch thick, greyish white and fissured externally, inner surface brownish and striated. Fracture laminated with yellow fibres. Taste, mucilaginous, bitter. Odour, slight but disagreeable.

CACAO. *Theobroma Cacao*, Linn.Fam. *Sterculiaceæ*.

Syn.—Cocoa, Chocolate Tree

Part used—Seeds

Action—Nutritive, stimulant, diuretic. In the household, cocoa as well as chocolate is a well-known nutritive beverage. These preparations are however seldom used as medicine, although chocolate is an agreeable and convenient base for lozenges of nauseous or bitter drugs, such as Calomel, Santonin, &c. The cocoa-butter, expressed from the seeds, forms a hard, bland article, melting at a comparatively low temperature, and is much used in suppositories, lip salves, pomades, &c. Another constituent of the seeds is Theobromine, which resembles Caffeine in its stimulant and diuretic action.

Distinctive character—Seeds oval, oblong compressed, $\frac{1}{2}$ of an inch or more long, husk thin and papery. Seed breaking up into angular fragments under pressure, due to the presence of the inner seed coat between the folds of the cotyledons. Taste and odour well known.

CAJUPUT. *Melaleuca Leucadendron*, Linn.
Fam. *Myrtaceæ*.

Syn.—Cajeput, White Tea Tree, Swamp Tea Tree, Broad-leaved Tea Tree, White-wood, *Melaleuca Cajuputi*, Roxb.

Part used—Oil.

Action—Stimulant, antispasmodic, diaphoretic. The natives of the Molucca Islands, where the tree grows, esteem it very highly as a remedy for all kind of pains, internal and external. It may be employed with advantage in lotions for rheumatic affections, toothache, neuralgia, sprains, and bruises. Internally, it may be taken on sugar in doses of 1-10 drops as a valuable diffusive stimulant in colics, spasms, flatulence, and hiccough.

Preparations—Liniment of Croton Oil B.P.C., Spirit B.P. : Dose, 5-30 minims.

Distinctive character—The oil as imported into this country is a greenish colour, due to contamination with copper when originally distilled. In order to comply with the description in the B.P. the oil has to be re-distilled in this country, when it appears colourless or pale yellow. The odour recalls that of Camphor and Eucalyptus.

CALABAR BEAN. *Physostigma venenosum*, Balf.
Fam. *Leguminosæ*.

Syn.—Ordeal Bean, Chopnut.

Part used—Ripe seeds from West coast of Africa.

Action—Sedative, myotic. It allays extreme nervous irritation, but should be given with great care, and only under legal medical advice, as large doses have a poisonous effect. Mostly used in combination with Prickly Ash or Belladonna. Its chief use is in eye diseases as a local myotic. Produces contraction of the pupil.

Preparations—Fluid extract: Dose, 1-3 drops.
 Alkaloid Physostigmine · Dose, $\frac{1}{10}$ — $\frac{1}{20}$ grain. Tincture
 U.S.P.: Dose, 15 drops.

Distinctive character—Seeds dark brownish or blackish brown, 1-1½ inch long, $\frac{1}{8}$ inch broad, 1½ inch thick, oblong with rounded ends, or slightly kidney-shaped, the hilum extending along the whole convex side. Cotyledons white, turning yellow when touched with strong Potash solution **Poison.**

CALAMINT.

Calamintha officinalis, Moench.

Fam. Labiatae.

Syn.—Common Calamint, Basil Thyme, *Calamintha menthifolia*, Host, Mountain Mint

Part used—Herb

Action—Diaphoretic, expectorant Usually used in the form of a decoction or syrup

Distinctive character—Leaves broadly ovate, slightly serrate, stalked Flowers pale purple Calyx with upper teeth triangular, erect, fringed with hairs, lower teeth longer, awl-shaped Taste, aromatic. Odour, mint-like

CALAMUS.

Acorus Calamus, Linn.

Fam. Araceae.

Syn.—Sweet Flag, *Calamus aromaticus*, Sweet Sedge.

Part used—Root

Action—Aromatic, carminative, and stomachic. Useful in flatulence, wind, colic, ague, and dyspepsia, &c. Is often added to tonic medicines The root may be chewed in dyspepsia, or an infusion of 1 ounce to 1 pint of boiling water may be taken freely in doses of a teacupful An old remedy for ague

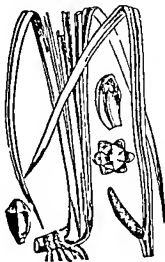
Preparations—Fluid extract U.S.P. Dose, 15-60 drops Powdered root Dose, $\frac{1}{4}$ -1 drachm



BUTTERBUR
(See page 60)



CALAMINT
(See page 64)



CALAMUS
(See page 64)



CARAWAY
(See page 70)

Distinctive character—Rhizome about $\frac{1}{4}$ inch in diameter, pale fawn-coloured longitudinally, wrinkled, with numerous oblique transverse leaf scars above, crowded in the part near the stem with small circular root scars underneath. Fracture whitish, short, and finely porous, with scattered woody bundles visible when the section is wetted. Taste, aromatic, pungent, and bitter. Odour, sweet and aromatic. The peeled rhizome is usually angular and often split, and is less aromatic.

Grows freely on the banks of rivers in England.

CALOTROPIS.

Calotropis procera, R. Br., and
Calotropis gigantea, Ait.

Fam. *Asclepiadaceæ*.

Syn.—Mudar Bark, *Asclepias procera*, Willd.

Action—Used as a local remedy in India for elephantiasis, leprosy, and chronic eczema. Internally for diarrhoea and dysentery.

Preparations—Powdered Bark. Dose, 3–10 grains as expectorant, $\frac{1}{4}$ –1 drachm as emetic. Tincture (1 in 10), Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The bark occurs in irregular short pieces, slightly quilled or curved, and from $\frac{1}{8}$ – $\frac{1}{2}$ inch thick, and $\frac{3}{4}$ inch or more in width. Externally greyish, yellow, soft and spongy, internally, yellowish white and smooth, or finely striated. Fracture short, yellowish white. Taste, acid and bitter.

CALUMBA.

Jateorhiza Palmata, Miers

Fam. *Menispermaceæ*

Syn.—*Cocculus palmatus*, D C, Colombo

Part used—Root

Action—Tonic, febrifuge. A bitter tonic without astringency. Valuable in all cases of dyspepsia, weakness of stomach, &c. An infusion of 1 ounce in 1 pint of cold water may be taken in 2 tablespoonful doses three to four times a day.

The U.S. Dispensatory gives the following as a remedy for accumulation of *flatus* in the bowels :— $\frac{1}{2}$ ounce each powdered Calumba and Ginger, 1 drachm Senna. Infuse in 1 pint boiling water. Dose, a wineglassful three times a day.

Preparations—Powdered root : Dose, 10–30 grains. Fluid extract : Dose, 10–30 minims. Inf. Calumb. Conc. B.P. : Dose, $\frac{1}{2}$ –1 drachm. Tinct. Calumb. B.P. . Dose, $\frac{1}{2}$ –1 drachm. Solid extract : Dose, 2 grains. Powdered extract : Dose, 2 grams.

Distinctive character—Root in circular sections about $1\frac{1}{2}$ – $2\frac{1}{2}$ inches in diameter and $\frac{1}{4}$ inch or more in thickness, the centre usually depressed. Bark thick, very bitter. Odour, slight.

CAMPBOR.

Cinnamomum Camphora, T. Nees and Eberm.

Fam. *Lauraceæ*.

Syn. Gum Camphor, Laurel Camphor, *Laurus Camphora*, Linn., *Camphora officinarum*, Nees.

Action—Sedative, anodyne, antispasmodic, diaphoretic, anthelmintic. Internally, Camphor is used in colds, chills, and in diarrhœa from colds. In all inflammatory affections, fevers and hysterical complaints, it will be found of great value. It acts beneficially in gout, rheumatic pains and neuralgia, and is highly valued in all irritations of the sexual organs. Large doses should be carefully avoided, as they cause vomiting, palpitation, and convulsions. Externally, it can be safely applied in all cases of inflammations, bruises, sprains, &c.

Preparations—Aq. Camph. B.P. : Dose, $\frac{1}{2}$ –1 fluid ounce. Aq. Camph. Conc. B.P.C. : Dose, 5–15 minims. Cret. c Camph. B.P.C. Linct. Camph. Co. B.P.C. : Dose,

$\frac{1}{2}$ –2 drachms. Lin. Aconit. B.P., Lin. Bellad. B.P., Lin. Camph. Ammon. B.P., Lin. Chlorof. B.P.C., Lin. Saponis B.P., Lin. Terebinth B.P., Lin. Terebinth Acet. B.P., and several other B.P.C. liniments. Sp. Camph. B.P. : Dose, 5–30 minims. Syr. Camph. Co. B.P.C. : Dose, $\frac{1}{2}$ –1 drachm. Tinct. Opii Camph. B.P. Dose, $\frac{1}{2}$ –1 drachm. Ung. Camph. B.P.C.

Distinctive character—Soluble readily in spirits of wine, to a less extent in warm fixed oils, and in water sufficiently to flavour it strongly. Floats on water.

Camphor is obtained from large trees indigenous to Formosa by passing steam through the chipped wood. The distillate contains Camphor, which is separated and resublimed, leaving an essential oil of Camphor. From this oil, Safrol is obtained by fractional distillation.

CANADIAN HEMP. *Apocynum cannabinum*, Linn.

(And other species) Fam. *Lauraceæ*.

Syn.—Black Indian Hemp, *Apocynum pubescens*. R.Br.

Part used—Root

Action—Diaphoretic, diuretic, expectorant, emetic. Valuable in cardiac dropsy, and recommended favourably in intermittent and remittent fevers. Is also used in amenorrhœa and leucorrhœa. A decoction of 1 ounce in 1 pint of water is taken in tablespoonful doses or more. As an emetic give 10–30 grains of Powdered Root.

Preparations—Powdered root Dose, 1–5 grains. Fluid extract Dose 1–5 minims. Tinct. Apocyn B.P.C. Dose, 5–10 minims. Apocynin Dose, $\frac{1}{2}$ –1 grain.

Distinctive character—Root $\frac{1}{2}$ inch or more in diameter, rarely branched, longitudinally wrinkled, sometimes fissured transversely, pale brown externally. Bark thick, whitish, with central porous radiate wood, and often a small central pith. Fracture short. Taste of the bark, permanently bitter, disagreeable. Odour, none.

CANCHALAGUA.*Erythræa Chilensis*, Pers.Fam. *Gentianaceæ*.**Part used**—Herb.

Action—Bitter, tonic, stimulant. An excellent general tonic and stimulant. May be used in dyspepsia and all complaints of digestion. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Closely resembles Centaury, but is more branched and has linear leaves and distinctly stalked flowers.

CANELLA.*Canella alba*, Murray.Fam. *Canellaceæ*.

Syn.—White Cinnamon. West Indian Wild Cinnamon.

Part used—Bark.

Action—Aromatic, stimulant, tonic. Useful in enfeebled conditions of the stomach and intestines. Generally given in combination with other stomachics. Dose, 10–40 grains.

Preparation—Pulv. Aloes et Canella B.P.C. (Hiera Picra) : Dose, 3–10 grains.

Distinctive character—Bark fawn-coloured externally, chalky white on inner surface, in quilled pieces $\frac{1}{4}$ – $1\frac{1}{2}$ inch in diameter. Transverse fracture short, whitish, with numerous bright orange-yellow dots composed of resin cells. Taste, biting, aromatic, slightly recalling that of cinnamon. Odour, aromatic.

The thick, ash-grey cork is removed by gentle beating, when the bark is loosened.

CARAWAY.*Carum Carvi*, Linn.Fam. *Umbelliferae*.

Syn.—Caraway Seed, Caraway Fruit. Alcaravea.

Part used—Fruit.

Action—Carminative, stimulant. Used in children's ailments, flatulence, and stomachic derangements, also for flavouring in medicine and as a culinary.

Preparations—Powdered seeds Dose, 10–30 grains. Fluid extract Dose, 5–30 minims. Ol Carv B.P.: Dose, 1–3 minims Aq Carv Conc. B.P.C.: Dose, 5–15 minims. Aq. Carv Dest B.P.C.: Dose, $\frac{1}{2}$ –1 fluid ounce. Conf Piper B.P.C.: Dose, 1–2 drachms

Distinctive character—The fruit, wrongly called seed, is too well known in Abernethy biscuits to need description. The quality varies, English caraways are brighter brown and cleaner, and are the best. Dutch are darker coloured, Mogador are light brown, but longer. The fruit should be free from stalks and dirt.

CARDAMOMS. *Elettaria Cardamomum*, Maton.Var *Miniscula*, Burkill.Fam. *Zingiberaceae*.

Syn.—Mysore Cardamom Seeds, Malabar Cardamoms.

Part used—Seeds Cultivated chiefly in Ceylon.

Action.—Carminative, stomachic. A warm, grateful aromatic, chiefly employed in flatulence or as a flavour. The seeds should be crushed for use, and the infusion of 2 ounces to 1 pint of boiling water taken in wine-glassful doses

Preparations—Powdered seeds Dose, 10–30 grains. Fluid extract. Dose, 5–30 minims. Tinct Cardam. Aromat B.P.C.: Dose, 2–10 minims. Tinct. Cardam. Co. B.P.: Dose, $\frac{1}{2}$ –1 drachm Ol. Cardamom B.P.C.: Dose, $\frac{1}{2}$ –3 minims

Distinctive character—Fruits ovoid or oblong, more or less triangular, longitudinally furrowed, varying in length from $\frac{3}{4}$ – $\frac{1}{2}$ inch, or, in bleached samples, the angles are rounded and the surface smooth. The fruits should yield 75 per cent. of seeds. Seeds from ripe capsules are sold as split seeds, being broken in the process of extraction. The unbroken fruits are gathered before quite ripe, so as not to split open in drying.

CAROBA.*Jacaranda procera*, Spreng.Fam. *Bignoniaceæ*

Syn.—Carob Tree, Caaroba, *Jacaranda Caroba*, D.C., *Bignonia Caroba*, Vell.

Part used—Leaves.

Action—Alterative, diaphoretic, diuretic. In Brazil the natives use the Caroba in all venereal disorders, and it has been clinically experimented upon with success in syphilitic skin affections. It seems to have a sedative effect upon the nervous system, and it has been used in epilepsy.

The dose is from 15–60 grains.

Distinctive character—Leaflets leathery, lanceolate, tapering below, obtuse at the apex, about $2\frac{1}{2}$ inches long and 1 inch broad, minutely pitted on both surfaces, midrib prominent below, depressed above, veins spreading. Taste, bitterish; flavour, tea-like. Odour, none.

CASCARA AMARGA. *Picramnia Antidesma*, S.W.(And other species.) Fam. *Simarubaceæ*.

Syn.—West Indian Snakewood.

Action—Bitter tonic. Said to have distinctly alterative properties.

Preparation—Fluid extract : Dose, 20–40 minims.

Distinctive character—Bark in small fragments less than 1 inch long and about $\frac{1}{4}$ inch wide and $\frac{1}{8}$ inch thick, externally greyish, internally deep brown, inner surface nearly smooth. Transverse fracture short, showing numerous white dots, due to groups of stone cells. Taste, at first astringent, then bitter; flavour, earthy.

CASCARA SAGRADA *Rhamnus Purshiana*, D.C.

Fam. *Rhamnaceæ*.

Syn.—Sacred Bark Chuttem Bark.

Part used—Bark Imported from California and British Columbia

Action—Laxative, tonic. Largely used for habitual constipation, dyspepsia, and digestive complaints, also in the treatment of piles. For chronic constipation a first dose of $\frac{1}{2}$ or 1 teaspoonful at bedtime should be taken, followed by doses of 5-10 drops before each meal.

Preparations—Powdered bark. Dose, 20-60 grains. Elix Casc Sag B P Dose, $\frac{1}{2}$ -1 drachm. Ext. Casc Sag. Liq B.P. Dose, $\frac{1}{2}$ -1 drachm. Ext. Casc. Sag. Sicc. B.P. Dose, 2-8 grains. Mist Casc Co. B P C. Dose, $\frac{1}{2}$ -1 fluid ounce. Mist Rhei et Casc B P C. Dose, $\frac{1}{2}$ -1 fluid ounce. Pil Casc Co B P C Dose, 1-3 pills. Syr. Casc Aromat B P C Dose, $\frac{1}{2}$ -2 drachms. Ext. Casc. Sag. Liq. (tasteless) Dose, $\frac{1}{2}$ -1 drachm. Ext. Casc Sag Liq (aromatic) Dose, $\frac{1}{2}$ -1 drachm.

Distinctive character—Bark in quilled or curved pieces about $\frac{1}{4}$ inch wide and $\frac{1}{16}$ inch thick, purplish brown, furrowed longitudinally with transversely linear marks (lenticels), sometimes silvery grey with lichens. The inner surface is transversely wrinkled and longitudinally striated, reddish brown. Transverse fracture pale or dark brown, according to age. Taste, persistently bitter or nauseous. Odour, leather-like. Specimens with dark brown fracture, indicating its having been kept, are to be preferred, as recent bark sometimes causes griping. Collected in the spring and early summer.

CASCARILLA.*Croton Eleuteria*, J. BennFam. *Euphorbiaceæ*.

Syn.—Sweet Wood Bark.

Part used—Bark. Indigenous to the Bahama Islands.

Action—Stimulant, aromatic, tonic. Used in dyspepsia, flatulence, and diarrhœa; in convalescence from acute diseases and to prevent vomiting. Often combined with Cinchona, when this causes nausea. The infusion of 1 ounce to 1 pint of boiling water is taken in doses of a tablespoonful to a wineglassful as required.

Preparations—Powdered bark: Dose, 20–40 grains. Fluid extract: Dose, $\frac{1}{2}$ –1 drachm. Inf. Cascaril. Conc. B.P.C.: Dose, $\frac{1}{2}$ –1 drachm. Inf. Cascaril. Rec. B.P.C.: Dose, $\frac{1}{2}$ –1 fluid ounce. Tinct. Cascaril. B.P.C.: Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The bark occurs in short quilled pieces, up to $\frac{1}{2}$ inch in diameter, usually with a chalky, more or less cracked, white surface, with black dots due to the fruit of lichens. Transverse fracture reddish brown. Taste, aromatic, bitter. Fragrant when burnt, whence its use in fumigating pastilles and tobacco.

CASHEW-NUT. *Anacardium occidentale*, Linn.Fam. *Anacardiaceæ*.Syn.—*Cassuvium pomiferum*.

Part used—Nut.

Action—Nutritive. The roasted kernels are edible and of agreeable flavour. The fresh juice of the shell is acrid and corrosive, and the West Indian negroes use it for warts, corns, &c. The tree-bark has proved efficient in certain malarial fevers not yielding to treatment by Quinine.

Distinctive character—Fruit kidney-shaped, smooth, greyish, about 1 inch long, $\frac{1}{2}$ inch broad and thick. The thick shell is porous and contains a dark acrid oil, dangerous to very sensitive skins. The nuts are roasted to obtain the kernels, which are edible when thus obtained.

CASSIA.*Cinnamomum Cassia*, Blume.Fam. *Lauraceæ*.

Syn.—Chinese Cinnamon, Cassia lignea, Casia Bark

Part used—Bark. Cultivated in China.

Action—Tonic, stomachic, carminative. Used for domestic purposes and as a substitute for Ceylon Cinnamon in medicine

Distinctive character—The bark is in dull brown quilled pieces, sometimes remains of the epidermal layer are present. Quills not so thin and rarely inserted inside one another as in cinnamon. Taste and odour, aromatic, similar to Cinnamon, but distinct.

CASSIA BUDS are probably obtained from the same plant and allied species and consist of the immature fruits. They are used for the same purposes as the bark.

CASSIA PODS.*Cassia Fistula*, Linn.Fam. *Leguminosæ*.

Part used—Pulp.

Cassia Pods are the ripe fruits, attaining a length of 1½–2 feet. The interior is divided into compartments by transverse sections about 5 mm apart. A thin layer of black fruit pulp fills the cavity. As the fruit ripens the pulp contracts and the seeds rattle when shaken. Grown in both East and West Indies, the trees are easily recognised by the hanging raceme of brilliant flowers.

Action—A pleasant fruit laxative.

Preparations—Pulp. Dose, 1–2 drachms. The pulp also forms an ingredient in Conf. Sennæ B.P.

CASTOR OIL PLANT. *Ricinus communis*, Linn.Fam. *Euphorbiaceæ*.

Syn.—Castor Oil Bush, Palma Christi.

Part used—Expressed oil of the seed.

Action—Cathartic, purgative. From its mildness of action this is especially adapted for young children and child-bearing women, and may be used in cases of constipation, colic, and in diarrhœa due to slow digestion. It is also used for removing worms after other suitable remedies have been administered. Externally, it has been recommended for itch, ringworm, and cutaneous complaints. The nauseous taste can be covered by Lemon Oil, Sassafras Oil, and other essential oils, or it may be administered in fresh or warmed milk. The Canary Island women use the fresh leaves as an application to the breasts in order to increase the secretion of milk.

Preparations—Oil: Dose, 1-4 drachms. Emuls. Ricin. Aromat. B.P.C.: Dose, 1-2 fluid ounces. Mist. Ol. Ricin. B.P.C.: Dose, 1-2 fluid ounces. Ol. Ricin. Aromat. B.P.C.: Dose, 1-8 drachms. Ung. Zinc. et Ol. Ricin. B.P.C. Ung. Zinc. et Ol. Ricin. c Benzoin B.P.C.

Distinctive character—The three principal varieties of oil met with are the French, Italian, and English. Of these the Italian has the least taste.

The seed from which the oil is expressed is poisonous, but the poisonous ingredients are left behind in the cake after pressing.

GATECHU, BLACK.*Acacia Catechu*, Willd.Fam. *Leguminosæ*.

Syn.—Cutch, Catechu Nigrum.

Part used—Extract from leaves and young shoots of *Uncaria Gambier* and from the wood of *Acacia Catechu*.

Action—Astringent. Is used in chronic diarrhœa, chronic catarrh, and chronic dysentery. Useful for

arresting excessive mucous discharges, and for checking hæmorrhages. Recommended as a local application in relaxed sore throat, sponginess of gums, &c.

Preparation—Powdered Catechu : Dose, 5–15 grains.

Distinctive character—Two substances are sold under the name of Catechu. The one in black, shining pieces or cakes, sometimes with the remains of a leaf on the outside, derived from *Acacia Catechu*, which is known as Cutch or Black Catechu, and a second in dark or pale brown cubes with a dull powdery fracture, or sometimes in lozenge form, which is known as *Terra Japonica*, or Gambier, or Pale Catechu.

CATECHU, PALE.

Uncaria Gambier, Roxb.

Fam. *Rubiaceæ*.

Syn.—*Terra Japonica*, Gambier, *Ourouparia Gambir*, Baillon.

The leaves and young shoots are boiled in water and the strong decoction poured into wooden trays ; when set it is cut into cubes and dried.

Action—Astringent. Largely used in tanning industries.

Preparations—Powdered Catechu : Dose, 5–15 grains. Pulv. Catech. Co. B.P.C. : Dose, 10–60 grains. Tinct. Catech. B.P. : Dose, $\frac{1}{2}$ –1 drachm. Troch. Catech. B.P.C.

CATNEP.

Nepeta Cataria, Linn.

Fam. *Labiataæ*.

Syn.—Catmint.

Parts used—Herb, leaves.

Action—Carminative, tonic, diaphoretic, refrigerant. As it produces free perspiration it is very useful in colds, &c. The infusion of 1 ounce to 1 pint of boiling water may be taken by adults in doses of 2 tablespoonfuls, by children in 2 or 3 teaspoonfuls frequently, to relieve pain and flatulence.

Distinctive character—Stem opaque, hairy, grey. Leaves stalked, cordate-ovate, pointed, incise-serrate, whitish, hairy beneath. Flowers white dotted with crimson, two-lipped, upper lip straight, calyx tubular, lower stamens shortest, arranged in short, dense branched spikes. Taste and odour mint-like but characteristic.

The stem and leaves are rendered so white by the down that an old English simile is, "As white as Nep."

CAYENNE.

Capsicum minimum, Roxb.

Fam. *Solanaceæ*.

N.B.—The only *Capsicum* recognised in the B.P. is the above, which comes from Sierra Leone, Zanzibar, Nyassaland, and Madagascar and Japan.

Syn.—African Pepper, Guinea Pepper, Bird Pepper, Chillies, *Capsicum fastigiatum*, Bl.

Part used—Fruit.

Action—Stimulant, tonic, carminative, rubefacient. The purest and most certain stimulant in herbal materia medica. Produces natural warmth and equalises the circulation. Persons exposed any length of time to cold and damp may ward off disease by taking pills made of pure Cayenne, and a cold may generally be removed by one or two doses of the powder taken in warm water. Cayenne enters into many of the compounds of the herbal practice, and is one of the most important remedies.

Preparations—Emp. Capsic. B.P.C., Emp. Capsic. Elast. B.P.C.; Gossyp. Capsic. B.P.C.; Lin. Capsic. B.P.C.; Tel. Carbas et Gossyp. Capsic. B.P.C.; Tinct. Capsic. B.P.: Dose, 5–15 minims. Tinct. Capsic. fort B.P.C.: Dose, 1–3 minims. Ung. Capsic. B.P.; Ung. Capsic. Co. B.P.C.; Ung. Capsic fort B.P.C.; Oleores Capsic, B.P.C.: Dose, $\frac{1}{100}$ – $\frac{1}{50}$ grain. Tincture U.S.P. XI (1 in 10): Dose, 8 minims.

Distinctive character—The fruit varies much in colour, size, and pungency. The most pungent are those of Sierra Leone, but the colour is yellowish red. Japanese are bright red and longer, but less pungent. Birdseye Cayenne are small bright Japanese pods of equal size. These are the most expensive, owing to the cost and care in collection. Zanzibar Chillies often have the stalks attached.

Other varieties—Paprika, Hungarian, *C. tetragonum* and *C. annuum*, var. *longum*; Japanese (small), *C. frutescens*, Linn., Bombay (large), *C. annuum*, Linn.; Spanish Bird Pepper, *C. annuum* var. *grossum*. Of these varieties the one of greatest interest is the Hungarian Paprika, which is grown in very large quantities. It is used as a bird food to improve the plumage of canaries. It is also largely used as a food spice, and more recently its medicinal value has been brought to notice by Prof. Dr. Szent Gyorgyi, who has pointed out that Paprika is the richest source of vitamin C.

CEDRON.

Simaba Cedron, Planch.

Fam. Simarubaceæ.

Syn.—Cedron Seeds.

Part used—Seeds

Action—Febrifuge, bitter, tonic, antispasmodic, sedative. The seeds are intensely bitter and have been employed in malarial complaints and in dyspepsia. The dose of the powdered seeds is 1-10 grains, and the infusion of 1 ounce in 1 pint of boiling water may be given in doses of a tablespoonful three to four times a day.

Distinctive character—The Cedron Seeds of commerce consist of the separated cotyledons; these are flattened on one side and convex on the other, and are of a greyish yellow tint about $1\frac{1}{2}$ inch long and $\frac{1}{2}$ - $\frac{3}{4}$ inch in diameter. Fracture short and yellowish. Taste, very bitter. Odour, recalling that of cocoanut.



CATNEP
(See page 76)



CELANDINE
(See page 80)



CELERY
(See page 80)



CENTAURY
(See page 81)

CELANDINE.*Chelidonium majus*, Linn.Fam. *Papaveraceæ*.

Syn.—Garden Celandine, Greater Celandine.

Part used—Herb.

Action—Alterative, diuretic, purgative. Used in jaundice, scrofulous diseases, eczema, &c. The infusion of 1 ounce of herb to 1 pint of boiling water is taken in wineglassful doses. The fresh juice makes an excellent application for corns and warts.

Preparation—Fluid extract Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Leaves pinnate, green above, greyish below, 6–12 inches long and 2–3 inches wide. Leaflets opposite, deeply cut with rounded teeth. Leaf-stalk flat above, convex beneath, with recurved hairs, exuding a saffron yellow juice when fresh and broken. Taste, acrid, bitter, and caustic. Odour, disagreeable.

CELERY.*Apium graveolens*, Linn.Fam. *Umbelliferæ*.

Syn.—Smallage

Part used—Seeds

Action—Carminative, diuretic, tonic, and aphrodisiac. Used as a flavour and a tonic in combination with other drugs such as Coca, Kola, Damiana, &c. It is recommended as excellent in rheumatism.

Preparations—Fluid extract B.P.C. . Dose, 5–20 minims. Essential oil: Dose, $\frac{1}{2}$ –2 drops. Powdered seeds . Dose, 20–60 grains.

Distinctive character—The seeds are very small, $\frac{1}{8}$ inch long, ovate, plano-convex, brown, with five paler longitudinal ribs. Taste and odour that of celery.

CENTAURY.

Erythræa Centaureum, Pers.Fam. *Gentianaceæ*.

Syn.—Century, Centory, Feverwort.

Parts used—Herbs, leaves.

Action—Aromatic, bitter, stomachic, tonic. Should be given in conjunction with Barberry Bark in cases of jaundice. Is used extensively in dyspepsia. Appears to strengthen the heart. The dose of the infusion of 1 ounce to 1 pint of boiling water is a wineglassful.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stem 8–12 inches high, with opposite, lanceolate-ovate leaves, having three to five longitudinal ribs, hairless, and entire at the margins. Flowers, pink, with twisted anthers. Taste, bitter. Odour, slight, disappearing when dried.

CHAMOMILE.

Anthemis nobilis, Linn.Fam. *Compositæ*.

Syn.—Roman Chamomile. Double Chamomile.

Parts used—Flowers, herb.

Action—Stomachic, antispasmodic, tonic. An old-fashioned remedy for hysterical and used as an emm with crushed poppy-heads make a good poultice for allaying pains, when other means have failed. As a lotion it is also excellent for external application in toothache, earache, neuralgia, &c. The herb and flowers are equally valuable. The dose of the infusion of 1 ounce to 1 pint of boiling water is a tablespoonful to a wineglassful. The herb is also used in the manufacture of herb beers. As a tonic the Powdered Flowers may be used in doses of $\frac{1}{2}$ –1 drachm three times a day.

Preparations—Dec. Papav et Anthem Forte B.P.C. Ext. Anthem B.P.C. : Dose, 2-8 grains. Ext. Anthem Liq. B.P.C. : Dose, $\frac{1}{2}$ -1 drachm. Ol. Anthem B.P.C. : Dose, $\frac{1}{2}$ -3 minims.

Distinctive character—Flowers double, *i.e.*, consisting entirely of ligulate florets, about $\frac{1}{2}$ inch in diameter, leaving, when pulled off, a conical, solid receptacle, covered with lanceolate, membranous scales (*paleæ*). Leaves pinnately divided into short and hairy leaflets. Taste, aromatic and very bitter. In English Camomile Flowers a few of the central florets are tubular. Wild Camomile Flowers, having only an outer row of ligulate florets, are known as Scotch Camomiles.

The Double Chamomile is largely cultivated in Belgium and France.

CHAMOMILE, GERMAN.

Matricaria Chamomilla, Linn.

Fam. *Compositæ*.

Syn.—Pin Heads, Single Camomile.

Part used—Flowers.

Action—Carminative, sedative, tonic. It is an excellent remedy in children's ailments. It acts as a nerve sedative and also as a tonic upon the gastrointestinal canal. Useful during dentition, in cases of earache, neuralgic pains, stomach disorders, and infantile convulsions. The infusion of $\frac{1}{2}$ ounce to 1 pint of boiling water may be given freely in teaspoonful doses to children. Also used externally as a fomentation.

Preparation—Powder : Dose, 2-4 drachms. Fluid extract. Dose, $\frac{1}{4}$ -1 drachm.

Distinctive character—The flower heads are much smaller than the preceding, and have only one row of ligulate florets, which are usually bent backwards when dry. The receptacle is conical and hollow, and has no membranous bracts on it. Taste, bitter and aromatic. Odour, like the preceding, but weaker. The florets readily fall off.



CHAMOMILE
(See page 81)



CHAMOMILE, German
(See page 82)



CHERRY STALKS
(See page 83)



CHICKWEED
(See page 86)

CHAULMOOGRA. *Hydnocarpus Kurzii*, King.
Fam. *Bixaceæ*.

Syn.—Chaulmugra, Chaulmogra.

These seeds were for some years supposed to be the produce of *Chaulmoogra odorata*, Roxb., but it has recently been shown that the seeds of that plant are quite different.

Parts used—Seeds, oil

Action—Sedative, febrifuge, dermatic. The seeds may be given internally, when powdered and made into pills, in doses of 3-6 grains. The oil expressed from the seeds has been much praised as an internal and external remedy in scrofulous, syphilitic, and rheumatic skin affections. It has proved itself a valuable agent in stiffness of joints and cutaneous eruptions such as eczema and psoriasis. The best form is the ointment made of 1 part of oil to 4 of base. For internal administration the oil is administered in the form of an emulsion with almonds or milk.

Preparations—Oil. Dose, 3-15 minims gradually increasing to 60 minims when given by the mouth, or 30 minims gradually increasing to 75 minims by subcutaneous and intramuscular injection. Ung. Chaulmoog., B.P.C., containing 10 per cent oil.

Distinctive character—Seeds greyish, about 1 inch long and $\frac{1}{8}$ inch in diameter, irregularly angular with rounded ends. Kernel (albumen) oily, enclosing two thin heart-shaped three-veined cotyledons with a straight radicle. Taste, somewhat acid, and odour, disagreeable.

Varieties—Chaulmoogra Oil has now been almost entirely replaced by Hydnocarpus Oil, which is official in the B.P. This is derived from *Hydnocarpus Wightiana*, Blume. The oil has similar properties to those of Chaulmoogra and the dose is the same.

The ethyl esters of Hydnocarpus are also official in the B.P., and are preferred for injections in cases of leprosy. The doses are the same as for Oil of Chaulmoogra.

CHEKEN.*Eugenia Chequen*, Molina.
Fam. *Myrtaceæ*.Syn.—Chekan, Chequen, *Myrtus Cheken*, Spreng.

Part used—Leaves.

Action—Diuretic, expectorant, tonic. Is reputed to be a valuable remedy in catarrhal disorders of respiratory organs. Dr. Murrell, of London, claims it to be excellent in winter coughs of elderly persons.

Preparation—Fluid extract : Dose, 1-2 drachms.

Distinctive character—Leaves leathery, ovate, $\frac{1}{2}$ -1 inch long, $\frac{1}{4}$ - $\frac{1}{2}$ inch wide, and entire at the margins, very shortly stalked with numerous minute, round, translucent oil cells. Twigs with opposite leaf scars. Taste, astringent and bitter ; flavour, aromatic, recalling that of bay leaves. Odour, very slight.**CHERRYLAUREL.** *Prunus Laurocerasus*, Linn.
Fam. *Rosaceæ*.

Part used—Leaves.

Action—Sedative. Mostly used to produce cherry-laurel water, and as such, of value in cough, whooping cough, and asthma, as an addition to other medication. Also useful in dyspepsia, indigestion, &c.

Preparation—Water B.P. Dose, $\frac{1}{2}$ -2 drachms.Distinctive character—Leaves leathery, shining, about 5-6 inches long by 1 $\frac{1}{2}$ -2 inches wide, oblong, lincolate, pointed, and serrate at the margins. At the back of the leaf there are two or three dot-like glands close to the midrib near the base. Odour, when the fresh leaves are bruised, like that of oil of bitter almonds.**CHERRY STALKS.** *Prunus avium*, Linn.
(And other species.) Fam. *Rosaceæ*.

Action—Tonic, and slightly astringent.

Distinctive character—Fruitstalks about 1 $\frac{1}{2}$ inch long and $\frac{1}{4}$ inch in thickness, enlarged at one end.

The stalks of various species are collected indifferently, viz., *P. Cerasus*, Linn., and *P. duracina*, Sweet, i.e., of the red, black, and white or Bigarreau cherries. Taste, bitter and astringent.

CHESTNUT.

Castanea vesca, Gaertn.

Fam. *Cupuliferae*.

Syn.—*Castanea dentata*, Borkh., *Castanea vulgaris*, Lam.

Part used—Leaves.

Action—Tonic, astringent. In some places chestnut leaves are used as a popular remedy in fever, ague, &c. Their reputation, however, rests upon their remarkable efficiency in paroxysmal or convulsive coughs, whooping coughs, and other irritable and excitable conditions of the respiratory organs. The infusion of 1 ounce of leaves in 1 pint of boiling water is administered in tablespoonful to wineglassful doses, repeated three to four times daily.

Distinctive character—Leaves leathery, about 6–8 inches long, and 2½ inches broad, oblong lanceolate, feather-veined, margins with distant sharp-pointed, spreading teeth. In the American form of the tree (*Castanea dentata*) the teeth are curved forward. Taste, astringent. Odour, none.

CHICKWEED.

Stellaria media, Cyrill.

Fam. *Caryophyllaceae*.

Syn.—*Alsine media*, Linn., Starweed, Star Chickweed.

Part used—Herb.

Action—Demulcent, refrigerant. The fresh leaves have been used as a poultice to indolent ulcers, with most beneficial results. Has also been employed as an application in ophthalmia and as an ointment in cutaneous diseases. An infusion of 1 ounce to 1 pint of boiling water taken in wineglassful doses at intervals during the day is good for scurvy and kidney disorders.

Distinctive character—Stems jointed, with a line of hairs down one side only. Leaves ovate, about $\frac{1}{2}$ inch long by $\frac{1}{4}$ inch broad with flat stalks below, stalkless above. Flowers singly in the axils of the upper leaves, petals white and narrow, shorter than the calyx. Taste, slightly saline. Odour, none.

CHICORY.*Cichorium Intybus*, Linn.Fam. *Compositæ*.

Syn.—Succory, Wild Succory.

Part used—Root.

Action—Tonic, diuretic, laxative. A decoction of 1 ounce of the root to 1 pint of boiling water and taken freely has been found effective in jaundice, liver enlargements, gout, and rheumatic complaints.

Distinctive character—Root brownish, with tough, loose, reticulated white layers surrounding a radiate woody column. Often crowned with remains of the stem. Taste, bitter, mucilaginous. Odour, none.

Garden Endive (*Cichorium Endiva*), a variety of Succory, is largely grown for salads.

CHINA.*Smilax China*, Linn.Fam. *Liliacæ*.**Part used**—Root.

Action—Alterative, antisyphilitic. Used occasionally as a substitute for Sarsaparilla and for similar purposes.

Distinctive character—Tubers cylindrical, somewhat flattened sometimes, 4–6 inches long and 1 or 2 inches in thickness, with short knotty branches, and a rusty, shining bark. Internally, of a pale fawn colour. Taste, insipid. Odour, none.

CHIRETTA.*Swertia Chirata*, Buch-Ham.Fam. *Gentianaceæ*.

Syn.—Brown Chirata, White Chiretta, Chirayta, *Ophelia Chirata*, Griseb.

Part used—Entire plant. Collected in Northern India.

Action—Bitter tonic. May be used wherever a tonic is required. The dose of the infusion of $\frac{1}{2}$ ounce to 1 pint of water is half to one wineglassful.

Preparations—Powdered plant. Dose, 5–30 grains. Fluid extract. Dose, $\frac{1}{2}$ –1 drachm. Solid extract: Dose, 4–8 grains. Inf. Chirat Conc B P C Dose, $\frac{1}{2}$ –1 drachm. Inf. Chirat Rec. B P C Dose, $\frac{1}{2}$ –1 fluid ounce. Tinct Chirat. B P C Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stems brown or purplish, $\frac{1}{10}$ – $\frac{3}{16}$ inch thick, cylindrical below, quadrangular upwards, containing a large pith. Leaves opposite, entire with three to seven longitudinal ribs. Capsules, one-celled, two-valved. Taste, intensely bitter. Odour, none. GREEN CHIRETTA, derived from *Andrographis Paniculata*, Ness (Fam. *Acanthaceæ*), has an equally bitter but not an earthy taste.

CICELY, SWEET.*Myrrhis odorata*, Scop.Fam. *Umbelliferaæ*.

Syn.—Smoother Cicely, Sweet Chervil

Parts used—Root, herb.

Action—Carminative, stomachic, expectorant. The fresh root may be eaten freely. It is found useful in coughs and flatulence, also as a gentle stimulant in indigestion and stomachic complaints. The dried root is best used in the form of a decoction, and the herb in an infusion. An infusion of the herb gives good results for anæmia and is a splendid tonic for young girls.

Distinctive character—Leaves large, tripinnate, leaflets hairy on the veins below and on the margins, leafstalks with spreading hairs. Leaflets ovate lanceolate, usually with white splashes near the base of the larger ones. Taste, sweet anise-like. Root whitish, $\frac{1}{2}$ – $1\frac{1}{2}$ inch broad, with small central columns and radiate structure, the medullary rays curved in the bark. *Osmorhiza longistylis*, D.C., yields American Sweet Cicely. Cicely Root and Angelica were used to prevent infection in the time of the plague.

CINCHONA BARK.

Official varieties derived from *Cinchona Calisaya*, Wedd.: *C. Ledgeriana*, Moens; *C. officinalis*, Linn.; *C. Succirubra*, Pav.; hybrids of *C. Calisaya* or *C. Ledgeriana* with *C. officinalis* or *succirubra*.

Fam. *Rubiaceæ*.

Syn.—Peruvian Bark, Jesuits Bark.

Action—Antiperiodic, febrifuge, tonic, astringent. Useful in all febrile and typhoid conditions, and in remittent and intermittent fevers. As a general tonic it is much esteemed, and finds extensive use in the treatment of neuralgia, dyspepsia, and debility. With many persons overdoses produce headache, giddiness, and imperfect hearing.

Habitat, the chain of the Andes. Now cultivated in British India and Java. Introduced into Spain after the Conquest of Peru, probably by the Jesuits. The British Pharmacopœia requires that the bark shall yield not less than 6 per cent. total alkaloids, of which not less than half shall consist of quinine.

and transverse cracks Rich in quinine.

C. Calisaya generally occurs in quills marked with white patches. Broad longitudinal fissures with regular transverse cracks about 6-12 mm. apart. The outer cork layer frequently exfoliates. Rich in quinine.

C. officinalis occurs in narrow quills, with numerous longitudinal and transverse cracks, giving a characteristic roughness to the back. Rich in quinine.

C. succirubra occurs in two forms. Flat from S. America; quills from Java. The flat red bark has longitudinal ridges and bright red warts, the inner surface being distinctly red. *Succirubra* quills are generally large. Outer surface reddish brown colour with grey lichens attached. Generally strongly wrinkled with reddish warts. Rich in cinchonidine.

C. lancifolia, or Carthagenia or Columbian Bark, occurs in single quills and flat pieces. The bark easily splinters and has numerous patches of silvery cork. Poor in quinine.

Preparations—Powdered bark: Dose, 5-15 grains. Dec. Cinchon. Conc. B.P.C.: Dose, 1-2 drachms. Elix. Cinchon. B.P.C.: Dose, $\frac{1}{2}$ -1 drachm. Ext. Cinchon. B.P.: Dose, 2-8 grains. Ext. Cinchon, Liq. B.P.: Dose, 5-15 minims. Inf. Cinchon. Acid conc. B.P.C.: Dose, $\frac{1}{2}$ -1 drachm. Tinct. Cinchon. B.P.: Dose, $\frac{1}{2}$ -1 drachm. Tinct. Cinchon. Co. B.P.: Dose, $\frac{1}{2}$ -1 drachm. Quinine alkaloid: Dose, 1-10 grains. Cinchonine Hydrochlor.: Dose, 1-10 grains. Cinchonidine Sulph.: Dose, 1-10 grains.

CINERARIA MARITIMA.

Senecio maritimus, Linn.

Fam. *Compositæ*.

Syn.—Dusty Miller.

Action—The sterilised juice of the plant is employed for the treatment of capsular and lenticular cataract of the eye. Its use is recommended before resorting to an operation. It should be applied to the eye by means of a medicine dropper.

Distinctive character—The plant is a native of the West Indies, but is grown in the south-west of England. Leaves 5-8 inches long and about $2-2\frac{1}{4}$ inches wide, pinnately divided, segments about three lobed, white with a dense white coating of hairs beneath. Flower-heads yellow, about $\frac{3}{8}$ inch in length.

CINNAMON. *Cinnamomum zeylanicum*, Nees.
Fam. *Lauraceæ*.

Part used—Bark.

Action—Aromatic, astringent, stimulant, carminative. A fragrant cordial especially useful for weakness of the stomach and diarrhoea. Checks nausea and vomiting. Generally combined with other remedies.

Preparations—Powdered bark: Dose, 5-20 grains. Aq. Cinnam. Conc. B.P.: Dose, 5-15 minims. Pulv. Cinnam. Co. B.P.C.: Dose, 10-60 grains. Tinct. Cinnam. B.P.C.: Dose, $\frac{1}{2}$ -1 drachm. Tinct. Cinnam. Co. B.P.C.: Dose, 1-2 drachms. Ol. Cinnam. B.P.: Dose, 1-3 minims.

Distinctive character—In pale brown thin quills, several rolled in one another. Quills usually $\frac{3}{8}$ - $\frac{5}{8}$ inch width, but not exceeding $\frac{1}{16}$ inch in thickness. Taste, sweet, pungent, and aromatic. Odour, characteristic.

Varieties: Saigon Cinnamon, derived from *Cinnamomum Laureirii*, Nees, is official in the U.S.P. It appears in thin greyish brown quills, warty. It is sweeter and stronger than Ceylon Cinnamon.

Cinnomomum cassia, see Cassia

Cinnamon Leaf Oil is distilled in Ceylon and imported into this country, but is not official. It serves as a cheaper variety of oil, but contains less cinnamic aldehyde than that from the bark.

Oil of Cinnamon in the United States is distilled from *Cinnamomum cassia* and is known in Great Britain as Oil of Cassia.

CLARY.*Salvia sclarea*, Linn.Fam. *Labiatae*.

Syn.—Clarry, Cleareye.

Parts used—Leaves, herb.

Action—Antispasmodic, balsamic. This plant has been used both fresh and dry. Mostly employed in disordered states of digestion as a stomachic. It has also been of service in kidney diseases with good results. The mucilage of the seeds has been used in ophthalmic disorders. The old herbalists considered a decoction of the herb to be most efficacious in any complaint of the eyes.

Distinctive character—Leaves large, heart-shaped, pointed, wrinkled, covered with velvety hairs. Flowers blue or white, with large membranous bracts longer than the calyx. Taste, warm and aromatic, slightly bitter. Odour, aromatic, recalling that of Tolu.

CLIVERS.*Gallum Aparine*, Linn.Fam. *Rubiaceae*.

Syn.—Cleavers, Goosegrass, Hayriffle, Errifle, Burweed, Goosebill.

Part used—Herb.

Action—Aperient, diuretic, tonic, alterative. Should be given in obstruction of urinary organs, suppression of urine, gravelly deposits, &c. Acts as a solvent of stone in the bladder. The infusion, hot or cold, of 1 ounce to 1 pint of water is taken frequently in wine-glassful doses.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stem quadrangular. Leaves lanceolate, about $\frac{1}{2}$ inch long and $\frac{1}{4}$ inch broad, in rings of six, with backward bristly hairs at the margins. Fruit nearly globular, about $\frac{1}{8}$ inch in diameter, covered with hooked bristles. Taste, slightly saline. Odour, none.



FENNEL, SWEET

(See page 83)



CLARY

(See page 92)



CLIVERS

(See page 92)



CLONSWORT

(See page 92)

CLOVES.*Eugenia aromatica* (Linn.) Baill.Fam. *Myrtaceæ*.**Syn.**—Clavos, *Eugenia caryophyllata*, Thumb.**Part used**—Unexpanded flower buds.**Action**—Stimulant, aromatic, carminative. A warm, stimulating aromatic, used chiefly in combination with other remedies.**Preparations**—Powdered Cloves Dose, 2-5 grains. Aq. Caryoph. Conc. B.P.C. Dose, 5-15 minims. Aq. Caryoph. Dest. B.P.C. Dose, $\frac{1}{2}$ -1 fluid ounce. Inf. Caryoph. Conc. B.P. Dose, $\frac{1}{2}$ -1 drachm. Inf. Caryoph. Recens B.P. Dose, $\frac{1}{2}$ -1 fluid ounce. Ol. Caryoph. B.P. Dose, 1-3 minims.**Distinctive character**—Flower buds brown, nail-shaped, the lower portion consisting of calyx tube enclosing in its upper half the ovary filled with minute ovules. Calyx teeth four, surrounded by the unopened globular corolla of four concave over-lapping petals. Stamens numerous. Taste, hot. Flavour, that of cloves. On pressing the calyx tube with the finger nail, oil should exude. Grown principally in Zanzibar, Madagascar, Amboyna, and Penang.**CLOWNSWORT.***Stachys sylvatica*, Linn.Fam. *Labiatae*.**Syn.**—Hedge Woundwort**Distinctive character**—Leaves opposite, on square stems, heart-shaped, hairy, long-stalked, margins bluntly serrate. Bracts underneath the terminal flowers linear, not toothed. Flowers reddish purple. Seeds (pyrenes), rough with minute depressions and warts. Taste, insipid. Odour, strong when fresh.

See also Woundwort.

CLUBMOSS. *Lycopodium clavatum*, Linn.
Fam. *Lycopodiaceæ*.

Syn.—*Lycopodium*, *Lycopodium* Seed, Vegetable Sulphur.

Parts used—Plant and spores (seeds).

Action—Sedative, emollient. *Lycopodium* has long been utilised for dusting over pills and the making of fireworks. Lately it has come into prominence as a remedy for internal use in urinary disorders, and has rendered a good service in the treatment of spasmodic retention of urine in children, catarrhal cystitis, and in chronic kidney diseases causing pain in kidneys, ureters and bladder, and associated with rheumatic symptoms. It is efficient as a gastric sedative in indigestion, dyspepsia, and catarrhal gastritis. Dose, 10–60 grains

Distinctive character—Stem woody, slender, elongated, with a few lateral forked branches, and a few scattered whitish roots below. Leaves crowded and scale-like, hair-tipped. Spore cases in spikes borne on erect, forked, club-shaped branches, at right angles to the prostrate stem, spores somewhat triangular, yellow, forming a mobile powder which floats on water without being wetted.

COCA, BOLIVIAN. *Erythroxylum coca*, Lam.
COCA, PERUVIAN.

Erythroxylum truxillense, Rusby.
Fam. *Erythroxylaceæ*.

Part used—Leaves. Cultivated in Peru, Bolivia, and Java.

Action—A powerful nerve stimulant and anodyne. Coca prevents fatigue, and the leaves are chewed by the South American natives to enable them to perform feats of endurance. Is also used in the treatment of asthma and as an aphrodisiac and a general nerve tonic. The leaves contain an alkaloid, Cocaine, which is used as an anæsthetic.

Preparations—Ext. Cocæ Liq. B.P.C. (miscible) : Dose, $\frac{1}{2}$ –1 drachm. Ext. Cocæ Liq. B.P. 1898 : Dose, $\frac{1}{2}$ –1 drachm. Ext. Cocæ B.P.C. 1923 : Dose, 2–10 grains. Elixir Cocæ B.P.C. : Dose, 1–4 drachms.

Distinctive character—Bolivian or Huanuco : Leaves are brownish green, oval, thin but tough, nearly 2 inches long and 1 inch wide, with two lines on the under surface parallel to the midrib, margins entire, apex rounded, a faint projecting line occurs on the upper surface of the midrib. Peruvian leaves, derived from *Erythroxylon Truxillense*, Rusby, are green, oblanceolate, and very brittle, but tapering below ; about $1\frac{1}{2}$ inch long and $\frac{1}{2}$ inch broad in the upper half, without any projecting line on the midrib.

Java Coca (*E. Trux*) is exported in the form of a coarse powder and is generally used for the manufacture of Cocaine.

COCCULUS INDICUS.

Anamirta paniculata, Colebr.

Fam *Menispermaceæ*.

Syn.—Fish Berries, Indian Berries, Levant Berries, Hockle Elderberry.

Part used—Berries or seeds Imported from East Indies.

Action—Stimulant, parasiticide. Though very poisonous, it has occasionally been given internally for similar purposes as Nux Vomica and its preparations. As an ingredient of an ointment it has been used in obstinate skin diseases, such as barber's itch, &c.

Preparations—Fluid extract Dose, $\frac{1}{2}$ –1 minim. Picrotoxin B.P.C Dose $\frac{1}{100}$ – $\frac{1}{2}$ grain

Distinctive character—Fruits roundly kidney-shaped, $\frac{1}{10}$ – $\frac{1}{8}$ inch long, blackish, containing a horse-shoe-shaped seed. Fruitshell tasteless, seed bitter and oily. The seeds stupefy fish when thrown into water.

COCILLANA BARK. *Guarea Rusbyi*, Rusby.
Fam. *Meliaceæ*.

Syn.—Guapi Bark, *Sycocarpus Rusbyi*, *Guarea trichilioides*.

Action—Expectorant. Resembles Ipecacuanha in action. Used in bronchitis, bronchial pneumonia, phthisis.

Preparations—Liq. Ext. (1 in 1): Dose, 8–20 minims. Syr. Cocillanæ Co.: Dose, $\frac{1}{2}$ –1 drachm. Syr. Cocillanæ Co. c diamorph. hydrochlor: Dose, $\frac{1}{2}$ –1 drachm. Syr. Cocillanæ Co. c æthylmorph. hydrochlor: Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The tree is indigenous to the upper slopes of the Eastern Andes. The bark occurs in flat or curved pieces of varying size, the outer surface fissured and grey-brown in colour. Where the cork has been removed, it shows an orange-brown colour. Inner surface brown and strongly striated longitudinally. Odour, characteristic. Taste, astringent and slightly nauseous.

COFFEE. *Coffea arabica*, Linn.
Fam. *Rubiaceæ*.

Syn.—Caffea.

Part used—Seeds, and active principle “Caffeine.”

Action—Stimulant, anti-narcotic, anti-emetic. As a beverage Coffee is well known, and is often used in domestic practice as a remedy in headache and as a general stimulant. When taken in excess it produces unpleasant heart symptoms. As a medicinal agent the beverage made from roasted seeds may be used, or the Caffeine, where a heart stimulant is needed. In narcotic poisoning it forms a valuable adjunct, as it dispels stupor and drowsiness, and is also used in cases of alcohol habit. Possessing decided diuretic properties it can be

employed with advantage in gout, rheumatism, and gravel. Dropsies of cardiac origin are also benefited by it. The dose of Caffeine is from $\frac{1}{2}$ –10 grains.

Distinctive character—Caffeine occurs in commerce in silky white crystals. The seeds are oval concave on one side, flat on the other, greenish grey, with a central longitudinal furrow.

COHOSH, BLACK. *Cimicifuga racemosa*, Nutt.

Fam. *Ranunculaceæ*.

Syn.—Black Snakeroot, Rattleroot, Rattleweed, Squawroot, *Actæa racemosa*, Linn., *Macrotys actæoides*, Raf.

Part used—Root.

Action—Astringent, diuretic, emmenagogue, alterative. In small doses useful in children's diarrhoea. In paroxysms of consumption it gives relief by allaying the cough, reducing rapidity of pulse, and inducing perspiration. Is specially recommended in cases of obstructed menses. In whooping cough its action is very highly spoken of. Frequently employed as a remedy for rheumatism. Said to be a specific in St. Vitus's Dance of children. Overdoses produce nausea and vomiting.

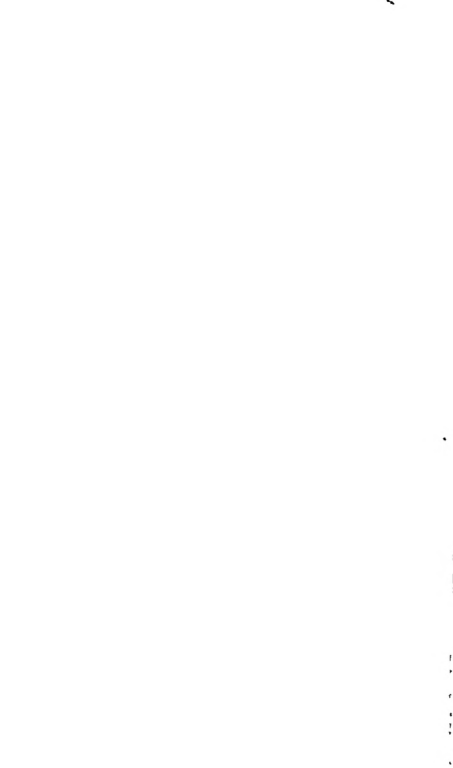
Preparations—Liquid extract B.P. 1898: Dose, 5–30 drops. Tincture B.P.C.: Dose, $\frac{1}{2}$ –1 drachm. Cimicifugin or Macrotin: Dose, 1–6 grains. Powdered extract: Dose, 4 grains. Solid extract: Dose, 1–3 grains.

Distinctive character—Rhizome thick, hard, and knotty, with short lateral branches, cylindrical, compressed, marked with transverse leaf scars. Transverse section horny, enclosing a ring of woody tissue within a hard, thick bark. Rootlets, when present, show on transverse section the woody tissue like a Maltese cross. Taste, bitter and acid, and rather astringent. Odour, disagreeable.



COLTSFOOT

Tussilago Farfara



COHOSH, BLUE.*Caulophyllum thalictroides*, Mich.Fam. *Berberidaceæ*.

Syn.—Papoose Root, *Leontice thalictroides*, Linn., Squaw Root.

Part used—Root.

Action—Diuretic, antispasmodic, vermifuge, and emmenagogue. Very efficacious in rheumatic affections and female complaints. The Indian women use it largely to expedite parturition and to induce menstruation.

Preparations—Ext. Cauloph. Liq. B.P.C.: Dose, 10–30 minims. Liq. Cauloph. et Pulsat. B.P.C.: Dose, 1–2 drachms. Liq. Cauloph. et Pulsat. Co. B.P.C.: Dose, 1–2 drachms. Solid extract: Dose, 5–10 grains. Caulophyllin: Dose, 2–5 grains. Powdered root: Dose, 5–30 grains.

Distinctive character—Rhizome brownish grey, about 4 inches long and $\frac{1}{4}$ – $\frac{1}{2}$ inch thick, and knotty with short branches, with numerous, crowded, concave stem-scars, on the upper side; furnished below with long, pale brown tough rootlets about $\frac{1}{2}$ inch thick; internally whitish, with narrow woody rays. Taste, sweetish, then bitter and acrid. Nearly inodorous.

COLCHICUM.*Colchicum autumnale*, Linn.Fam. *Liliaceæ*.

Syn.—Meadow Saffron, Naked Ladies.

Parts used—Root, seeds.

Action—Antirheumatic, cathartic, emetic. Its reputation rests largely upon its value in acute gouty and rheumatic complaints. Mostly used in connection with some alkaline diuretic. Also given in pill form. Overdoses cause violent purging, &c.

Preparations—Root—Powdered root: Dose, 2-5 grains. Ext. Colch. Sicc. B.P.: Dose, $\frac{1}{4}$ -1 grain. Ext. Colch. Liq.: Dose, 1-10 minims. Ext. Colch. Acet. B.P.C.: Dose, $\frac{1}{2}$ -2 grains. Pil. Colch. et Aloes, B.P.C.: Dose, 1-4 pills. Pil. Colch. et Hydrarg. B.P.C.: Dose, 1-3 pills. Pil. Colch. et Hydrarg. Co. B.P.C.: Dose, 1 or 2 pills. Seeds—Powdered seeds: Dose, 2-5 grains. Ext. Colch. Liq. B.P.: Dose, 2-5 minims. Tinct. Colch. B.P.: Dose, 5-15 minims. Vin. Colch. Sem. B.P.C.: Dose, 10-30 minims.

Distinctive character—The corm or root is usually solid in transverse slices, notched on one side, and somewhat reniform in outline, white and starchy internally. The corms are collected in the early summer and cut into thin slices. Taste, sweetish, then bitter and acrid. Produces a pale purple flower in the autumn.

The seeds are dull brown, nearly spherical, finely pitted, with a crest-like appendage at the hilum, very hard and horny, with a minute embryo. Taste bitter and acrid. Odour, none. A good sample of the seeds and corms yield about 0.5 per cent. Colchicine.

COLOPHONY RESIN.

Pinus palustris, Mill.

Pinus taeda, Linn.

(And other species.) Fam. *Pinaceæ*.

Syn.—Amber Resin, Rosin.

Action—Used principally in ointments and plasters. The ointment is used in cases of boils and ulcers as a stimulant.

Preparations—Emp. Coloph. B.P. Resin Carboli-sat. B.P.C. Ung. Coloph. B.P.C. (previously Ung. Resinæ B.P. 1914).

Distinctive character—Colophony Resin is the residue left after the distillation of Turpentine. Resin varies in colour from pale yellow to brown, and appears in brittle masses. For medicinal purposes, the pale resin is preferred.



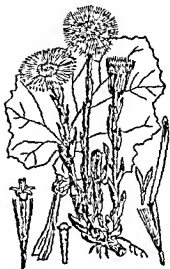
CLUBMOSS

(See page 93)



COLCHICUM

(See page 99)



COLTSFOOT

(See page 102)



COMFREY

(See page 103)

COLTSFOOT.*Tussilago Farfara*, Linn.Fam. *Compositæ*.

Syn.—Coughwort, Horsehoof.

Parts used—Leaves, flowers.

Action—Demulcent, expectorant. This is one of the most popular of cough remedies, and is generally given in conjunction with one or two other herbs possessing pectoral qualities, such as Horehound, Marshmallow, Ground Ivy, &c. A decoction is made of 1 ounce of leaves in 1 quart of water boiled down to 1 pint, and is taken in teacupful doses sweetened.

Preparations — Leaves — Liq ext · Dose, $\frac{1}{4}$ –1 drachm. Solid Ext. · Dose, 5–10 grains. Flowers—Ext Tussilag. Liq B P Dose, 10–30 minims. Syr. Tussilag. B.P.C · Dose, $\frac{1}{2}$ –2 drachms.

Distinctive character — Leaves hoof-shaped with angular teeth on the margins, about 4 inches in diameter, long-stalked, green above, coated with matted long white hairs beneath and on the upper surface when young. Taste, mucilaginous, bitterish, and slightly astringent. The leaves appear much later than the bright yellow flowers.

COLUMBO, AMERICAN.*Frasera carolinensis*, Walt.Fam. *Gentianaceæ*.Syn.—*Frasera Walteri*, *Frasera Canadensis*

Part used—Root

Action—Tonic, stimulant This drug is a gentle stimulant and may be serviceable in all cases where a bitter tonic is required, as it gives tone to the whole system and is reputed to relieve obstinate constipation. The infusion may be taken in doses of a wineglassful three to four times a day The dose of the powder is from 20–60 grains

Preparation—Fraserin : Dose, 1–3 grains

Distinctive character—Root in pieces 3-4 inches long and about $\frac{1}{2}$ -1 inch thick, often split longitudinally, the thick bark overlapping on the edges, pale brownish grey and transversely wrinkled externally above and longitudinally below. Transverse section pale yellowish brown or fawn colour. Fracture short and rather spongy. Taste, sweetish then bitter ; flavour resembling Gentian.

COMBRETUM. *Combretum Sundaicum*, Miq.
Fam. *Combretaceæ*.

Syn.—Opium Antidote.

Distinctive character—Leaves 4-5 inches long and about 2 $\frac{1}{2}$ inches broad, with 8-10 lateral spreading nerves, perforated in the axils, surface minutely scaly on the young leaves. Taste, slightly astringent and tea-like. Odour, none.

COMFREY. *Symphytum officinale*, Linn.
Fam. *Boraginaceæ*.

Syn.—Nipbone, Knitbone, *Consolidæ*.

Parts used—Root, leaves.

Action—Demulcent, astringent. Is very highly esteemed as a remedy in all pulmonary complaints, hæmoptysis, and consumption, and forms an ingredient in a large number of herbal preparations. Wherever a mucilaginous medicine is required this may be given. Has been used of late by the medical profession as a poultice to promote healing of obstinate ulcerous wounds. A decoction is made by boiling $\frac{1}{2}$ -1 ounce of crushed root in 1 quart of water or milk. Dose, a wine-glassful. The leaves are preferably taken as an infusion prepared in the usual manner. Comfrey Leaves subdue every kind of inflammatory swelling when used as a fomentation.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ -2 drachms.

Distinctive character—Root brownish black, deeply wrinkled, in pieces 3-6 inches long and $\frac{1}{2}$ – $\frac{3}{4}$ inch thick, greyish and horny internally. Fracture short. Transverse section showing a thick bark, short wood bundles and broad medullary rays. Taste, sweetish, mucilaginous, and faintly astringent. Odour, none.

CONDURANGO. *Marsdenia Condurango*, Nichols.

Fam. *Asclepiadaceæ*.

Syn.—*Gonolobus Condurango* (Triana).

Part used—Bark. Indigenous to Ecuador.

Action—Alterative, stomachic, aromatic. Used in cancer.

Preparations—Powdered bark: Dose, $\frac{1}{4}$ –1 drachm. Fluid extract: Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—In quilled pieces 2-4 inches long, about $\frac{1}{2}$ inch in diameter, and $\frac{1}{8}$ – $\frac{1}{4}$ inch thick. Outer surface brownish grey, with scattered warts of the same colour. Transverse fracture yellowish white, granular, with scattered fine silky fibres. Taste, bitter and somewhat acrid, and faintly aromatic.

CONTRAYERVA. *Dorstenia Contrayerva*, Linn.

Fam. *Urticaceæ*.

Syn.—*Dorstenia, Houstoni*, Linn.

Contrayerva is also obtained from *D. Braziliensis*, Lam., *D. Drakena*, Linn., *D. opifera*, Fisch., and *D. tubicina*, R. and P.

Part used—Root.

Action—Diaphoretic, stimulant. These properties make it a good remedy in typhus fever, dysentery, and skin diseases. The powder is taken in doses of 30 grains, but the infusion of 1 ounce in 1 pint of boiling water is the best form of administration.

Distinctive character—Rhizome about 1-1½ inch long and ¾ inch thick, reddish brown, rough with leaf scars, nearly cylindrical, tapering suddenly at the end into a tail-like root furnished with numerous curled, wiry, reddish brown rootlets, and 2-3 inches long. Transverse section horny, showing a thick bark, narrow, interrupted ring of wood and a large horny pith. Taste, slightly aromatic, becoming acrid on mastication, causing a flow of saliva. Odour, not unpleasant.

COOLWORT.*Tiarella cordifolia*, Linn.Fam. *Saxifragaceæ*.

Syn.—Mitrewort.

Part used—Herb.

Action—Diuretic, tonic. In cases of gravel, suppression of urine, and most complaints affecting the urinary organs, it is very useful. In dyspepsia and liver disorders it acts as a tonic and counteracts the acidity of the stomach. The infusion of 1 ounce to 1 pint of boiling water is taken frequently in doses of a wineglassful.

Distinctive character—Leaves with long slender stalks, heart-shaped, 2½-4½ inches wide, radiate veined with 5-12 sharp lobes, which are irregularly toothed, the teeth having a sharp point. Taste, faintly astringent. Inodorous.

COPAIBA.*Copaifera Lansdortii*, Desf.(And other species.) Fam. *Leguminosæ*.

Syn.—Copaiva, Capivi, Balsam Copaiva, Balsam Capivi.

Part used—Oleoresin. Obtained by tapping in Brazil.

Action—Stimulant, diuretic, cathartic. Used in excessive mucous discharges, as in chronic gonorrhœa, gleet, leucorrhœa, chronic catarrh of bladder, &c. On account of taste is generally given in pill or capsule form, mostly in combination with alkalines or Santal Oil, Cubebs, &c. Dose (B.P.), 10-30 minims.

Preparations—*Ol. Copaib.* B.P.C.: Dose, 5-20 minims. *Liq. Copaib.* B.P.C.: Dose, 1-2 drachms. *Liq. Copaib. Buchu et Cubeb.* B.P.C.: Dose, 1-2 drachms. *Liq. Copaib. Buchu et Cubeb c Ol. Santal* B.P.C.: Dose, 1-2 drachms. *Liq. Copaib. et Ol. Santal* B.P.C.: Dose, 1-2 drachms.

Distinctive character—The oleoresin differs much in appearance and fluidity. The Para kind is more and comparatively more fluid than the other. The ham tint.

tint. The volatile oil, from 60 to 90 per cent., the latter more resin and only 40 per cent. of oil. The thinner kinds are usually preferred in this country, the thicker in Germany.

The British Pharmacopœia recognises any variety of *S. American Copaiba* containing from 35 per cent. to 50 per cent. of volatile oil.

COPAL RESIN.

Zanzibar Const. 1962, p. 107. They are not used medicinally, but for technical purposes.

CORIANDER.

Coriandrum sativum, Linn.

Fam. Umbelliferæ.

Part used—Fruit. Cultivated in Southern Europe, Russia, Morocco, and India.

Action—Stimulant, carminative. Mostly used as a flavouring.

Preparations—Powdered fruit : Dose, 5-15 grains.
Fluid extract : Dose, 5-30 minims. Oil B.P. : Dose,
1-3 minims.

Distinctive character—The fruits are globular, about $\frac{1}{8}$ inch in diameter, with fine longitudinal ridges, separable into two halves (mericarps), each of which is concave internally and shows two brown longitudinal oil cells (vittæ). Taste, aromatic. Odour, when crushed, characteristic. Unripe fruits have a fetid odour, resembling rubber.

CORN ERGOT.

Ustilago Maydis, Leveille.

Fam. *Fungi*.

Syn.—Cornsmut, Cornbrand, Ustilago.

Part used—Fungus.

Action—Emmenagogue, parturient. A favourite remedy of Dr. Ellingwood in labour, post-partum hæmorrhages, and hæmorrhages of lungs, bowels, &c. Useful in spermatorrhœa, amenorrhœa, dysmenorrhœa, and other menstrual derangements. Dose, 1–20 grains.

Preparation—Fluid extract : Dose, $\frac{1}{4}$ – $\frac{1}{2}$ drachm.

Distinctive character—A blackish powder in irregular globose masses, somewhat lobed, and sometimes 6 inches or more in thickness. Powder consisting of innumerable fungus spores, with portions of the blackish, enclosing membrane. The spores are rounded, with a rough surface, as seen under the microscope. Taste, unpleasant. Odour, heavy. It should be kept dry, and obtained fresh every year. The name Cornsmut is more applicable, as the name Ergot is applied to a solid form of fungus mycelium. (See Ergot.)

CORNFLOWER.

Centaurea Cyanus, Linn.

Fam. *Compositæ*.

Syn.—Bluebottle, Bluebow, Hurtsickle, Bluet, Fr.

Part used—Flowers.

Action—Tonic, emmenagogue, stimulant. Its action is very much alike to that of Holy Thistle, which see.

Distinctive character—The flower-heads are globular, with closely overlapping fringed scales, and bright blue tubular florets, of which the outer are trumpet-shaped, seven-lobed, and about $\frac{3}{4}$ inch long. Taste, scarcely any. Odour, none.

CORN SILK.

Zea Mays, Linn.

Fam. *Graminaceæ*.

Syn.—*Stigmata maidis*.

Part used—Flower pistils of Maize.

Action—Demulcent, diuretic. Recommended as a valuable remedy in many urinary troubles, bladder affections, &c. Especially useful in purulent decomposition of urine in the bladder. The infusion of 2 ounces in 1 pint of boiling water is a most active preparation, and should be freely taken.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –2 drachms.

Distinctive character—Fine silky yellowish threads about 6 inches long and $\frac{1}{16}$ inch in diameter, finely hairy, consisting of the stigmas from the female flowers of maize. Taste, sweetish. Odour, none.

CORSICAN MOSS.

Alsidium Helminthocorton, Kütz.

Fam. *Algæ*.

Syn.—*Fucus Helminthocorton*, Linn.

Part used—Plant.

Action—Anthelmintic, vermifuge. Acts very powerfully on lumbricoid intestinal worms. The dose is from 10–60 grains taken with honey, treacle, syrup, or made up as an infusion.

Distinctive character—In tangled tufts of slender brownish white, cylindrical threads showing under the microscope transverse series of small oblong cells which give it a striated appearance. Taste, saline. Odour, that of seaweed.

COTO.Various species of *Nectandra*.*Fam. Lauraceæ.*

Syn.—Paracoto.

Part used—Bark.

Action—Antiseptic, astringent. Used with good results in intestinal catarrh, diarrhœa, and dysentery. A decoction of 1 ounce of bark in 1 pint of boiling water may be taken in tablespoonful doses or more as required.

Preparations—Powdered bark: Dose, 1-8 grains. Ext. Coto Liq. B.P.C.. Dose, 5-15 minims. Tinct. Coto B.P.C.: Dose, 10-30 minims.

Distinctive character—Genuine Coto Bark is no longer to be met with in commerce. Paracoto Bark, which is now very rare in commerce, occurs in curved thick pieces 4-6 inches or more long, and about 2½ inches wide, and ¼-¾ inch thick, of a full brown colour, a more or less corky outer surface, sometimes with patches of whitish epidermis, and a rough, coarsely striated inner surface. The transverse section shows numerous small groups of stone cells. Taste, hot and biting. Flavour aromatic. The edges of the section, both transverse and longitudinal, if kept in a bottle, become coated with a fine whitish crystalline efflorescence.

COTTON ROOT. *Gossypium herbaceum*, Linn.(And other species.) *Fam. Malvaceæ.*

Part used—Bark of root.

Action—Emmenagogue, parturient, oxytocic. Said to contract the uterus in a more effective and safe manner than Ergot. Used in cases of difficult and obstructed menstruation. It seems especially useful in sexual lassitude. An infusion of 2 ounces to 1 pint of boiling water is taken in wineglassful doses.

The seeds produce by pressure an oil, Ol. Gossypii, official in U.S.P. as Cotton Seed Oil

Preparations—Dec. Gossyp. Cort. B.P.C. : Dose, $\frac{1}{2}$ –2 fluid ounces. Ext. Gossyp. Cort. Liq. B.P.C. : Dose, $\frac{1}{2}$ –1 drachm. Tinct. Gossyp. Cort. B.P.C. : Dose, $\frac{1}{2}$ –1 drachm. Solid extract : Dose, 15–20 grains.

Distinctive character—In flexible or quilled strips, brownish yellow externally with faint longitudinal ridges or meshes, circular black dots or short transverse lines and brownish orange spots where the epidermal surface is abraded. Inner surface whitish, with a silky lustre. Inner bark of long tough fibres, separable in papery layers. Taste, faintly acrid and astringent.

COUCHGRASS.

Agropyron repens, Beauv.

Fam. Graminaceæ.

Syn.—Twitchgrass, Quickgrass, *Triticum repens*, Linn., and erroneously Dog's Grass, *Agropyrum*.

Part used—Rhizome (root).

Action—Diuretic, demulcent, aperient. Used in urinary and bladder complaints, cystitis, nephritis, &c. Also recommended in gout and rheumatism. The infusion, made from 1 ounce in 1 pint of boiling water, is taken in wineglassful doses several times daily for feverishness, &c.

Preparations—Dec. Agopyr. B.P.C. : Dose, $\frac{1}{2}$ –2 fluid ounces. Ext. Agopyr. Liq. B.P.C. : Dose, 1–2 drachms.

Distinctive character—Rhizome slender, tubular, about $\frac{1}{8}$ inch in diameter, stiff, shining pale yellow, smooth, with nodes at intervals of about an inch. It is met with in commerce, cut up into short lengths of $\frac{1}{4}$ and $\frac{1}{2}$ inch, and dried. Taste, slightly sweet. Odour, none.

SUBSTITUTES.—The rhizome of *Cynodon dactylon*, or Dog's Grass, is frequently imported into England as *Triticum repens*. This contains abundance of starch, which may easily be detected by boiling and adding Tincture of Iodine, giving the usual black solution. The root is white and almost solid.



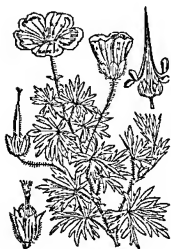
COUCHGRASS

(See page 110)



COWSLIP

(See page 112)



CRANESBILL, English

(*Geranium sanguineum*)

(See page 113)



CROSSWORT, English

(See page 114)

COWHAGE.*Mucuna pruriens*, D.C.

Fam. Leguminosæ.

Syn.—Cowage, Cowitch, *Dolichos pruriens*, Linn.

Part used—Hairs of pods attached to the fruit.

Action—Anthelmintic, rubefacient. In doses of $\frac{1}{2}$ –1 teaspoonful in honey, syrup, &c., it expels intestinal worms. In the form of an ointment it acts similarly to Croton Oil, producing no inconvenience.

Distinctive character—The hairs of the pod are brownish, about $\frac{1}{10}$ inch long, and consist of a conical, sharply-pointed cell, about $\frac{1}{10}$ inch in diameter, barbed at the apex. Considerable caution should be used in handling this drug, as the hairs are extremely irritating to the skin.

Dose of Powdered Cowhage, 10–60 grains.

COWSLIP.*Primula veris*, Linn.

Fam. Primulacæ.

Syn.—Paigles.

Part used—Flowers.

Action—Sedative, antispasmodic. Useful in restlessness, insomnia, &c. See also Primrose.

Distinctive character—The corolla, which is the part used, is tubular and yellow and about $\frac{1}{2}$ inch across, but becomes green on drying; it is dilated near the throat, where it is folded and spotted with yellowish orange. The corolla is five-lobed and about $\frac{1}{2}$ inch in width. Taste, sweetish. Odour, recalling that of apricots.

CRAMP BARK.*Viburnum Opulus*, Linn.

Fam. Caprifoliacæ.

Syn.—High Cranberry, Guelder Rose, Snowball Tree.

Part used—Bark.

Action—Antispasmodic, nervine. As its name implies, it is very effectual in cases of cramp, convulsions, and spasms of all kinds, and is held in high esteem by all

who employ it. It is chiefly used in combination as a tincture (see Antispasmodic Tincture), but may be given as a decoction by using $\frac{1}{2}$ ounce in 1 pint of water. Dose, a tablespoonful to a wineglassful as required.

Preparations—Fluid extract: Dose, $\frac{1}{2}$ –2 drachms. Viburnin: Dose, 1–3 grains.

Distinctive character—Bark thin, $\frac{1}{10}$ – $\frac{1}{12}$ inch thick,

CRANESBILL ROOT, AMERICAN.

Geranium maculatum, Linn.

Fam. *Geraniaceæ*.

Syn.—Alumroot.

Parts used—Root, herb.

Action—Stimulant, astringent, tonic. The root possesses

The fluid extract of the root may be used to stop internal or external bleeding. It has a tonic and astringent action on the kidneys. An injection for leucorrhœa
 pouring a pint of
 crushed Cranesbill
 acted twice a day.

Preparations—Fluid extract Dose, $\frac{1}{2}$ –1 drachm. Geranin: Dose, 1–3 grains.

Distinctive character—Root about 1½–2 inches long, $\frac{1}{2}$ – $\frac{3}{4}$ inch thick, dull brown, hard, knotty, with small protuberances. Fracture short, pale brown or reddish, with white dots. Taste, very astringent. Odour, none. Cranesbill Herb (English) is the *Geranium dissectum*, Linn., and has similar properties to *G. Maculatum*.

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CRANE'S-BILL

CROTON SEEDS.*Croton Tiglium*, Linn.Fam. *Euphorbiaceæ*.Syn.—*Tiglium*, *Tiglium officinale*, Klotzsch.

Part used—Oil expressed from seeds.

Action—Irritant, rubefacient, cathartic. Its action is prompt, and it frequently induces catharsis within an hour after taking. The smallness of the dose makes it valuable where large quantities of medicine cannot be tolerated. It is frequently used with Castor Oil or it may be administered in capsules or pills. The dose is $\frac{1}{2}$ –1 minim. Externally Croton Oil is used for its counter-irritating and vesicant effects.

Preparation—Lin. Croton B.P.C.

Distinctive character—Yellowish or reddish brown rather viscid oil. Taste, burning acid. Odour, unpleasant. It should be classed with the poisons, as a dose of more than one drop internally is liable to prove dangerous. It can be separated by alcohol into a purgative portion which is not vesicatory, the portion soluble in alcohol containing the vesicatory and dangerous principle.

The outer brown layer of the seeds is easily removed, leaving a hard black coat. The seeds generally have a mottled appearance.

CUBEBS.*Piper Cubeba*, Linn.Fam. *Piperaceæ*.

Syn.—Tailed Pepper.

Part used—Unripe fruit. Imported from Java.

Action.—Aromatic, diuretic, expectorant. A valuable remedy of cases of gonorrhœa, gleet, catarrh, and internal inflammations. Also used in coughs, bronchitis, and lung troubles generally. Has a stimulating effect upon the mucous membranes. For gonorrhœa the oil is generally given in capsule form and in combination with Copaiba, Santal Oil, &c.

Preparations—Powdered fruits : Dose, $\frac{1}{2}$ –1 drachm. Ext. Cubeb. Liq. B.P.C. : Dose, $\frac{1}{2}$ –1 drachm. Oleores. Cubeb. B.P.C. : Dose, 5–30 minims. Ol. Cubeb. B.P.C. : Dose, 5–20 minims. Tinct. Cubeb. B.P.C. : Dose, $\frac{1}{2}$ –1 drachm. Cubeb. Bronchial Troches.

Distinctive character—The fruit resembles black pepper in size and colour, but always tapers suddenly below into a stalk, and the taste is not pungent but warm, aromatic, and rather turpentiney. The seed has a minute embryo in a small cavity at the apex. If genuine, the crushed fruit turns crimson with strong sulphuric acid. A spurious kind, with a nutmeg odour, does not give this colour and is liable to produce poisonous symptoms.

CUCKOOPINT.

Arum maculatum, Linn.

Fam. *Araceæ*.

Syn.—Starchwort, Ramp, Lords-and-Ladies.

Part used—Root.

Action—Diaphoretic, expectorant. It is a good remedy internally and locally for sore throat. The dose is 10–30 grains of the powdered root. Large doses produce gastric inflammation, and fatal effects have been recorded from its use. It was formerly official in the Dublin Pharmacopœia.

Distinctive character—Root ovoid, about the size of a hazel nut, showing annular scars left by the leaf basis and scars of rootlets below. Internally white and starchy. Taste, acrid, lost to a certain extent on keeping. Odour, none (See Wake Robin, American.)

The starch obtained from the root was used to starch the lawn ruffs worn in the days of Queen Elizabeth.

CUDWEED.

Gnaphalium uliginosum, Linn.

Fam. *Compositæ*

Syn.—Cottonweed, Cotton Dawes.

Part used—Herb.

Action—Astringent. An excellent remedy for quinsy.

The infusion of 1 ounce to 1 pint of boiling water should be taken internally in wineglassful doses, and also used as a gargle.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stems and underside of leaves white, downy, with appressed woolly hairs. Leaves linear, about $1\frac{1}{4}$ inch long and $\frac{3}{16}$ inch wide, not hairy above. Flowerheads in a corymb. Phyllaries linear, tapering, chaffy. Receptacle, not hairy.

CUMMIN.

Cuminum Cyminum, Linn.

Fam. *Umbelliferae*.

Action—Carminative. Used frequently in veterinary medicines.

Distinctive character—Oblong cremocarps, light brown in colour. Each mericarp has five prominent ribs and four secondary ones. Odour and taste, somewhat like aniseed but less sweet.

CUP MOSS.

Cladonia pyxidata, Fries.

Fam. *Lichenes*.

Part used—Plant.

Action—Expectorant. Is excellent for children's coughs and whooping coughs. A decoction is made of 2 ounces to 1 pint of water sweetened with honey.

Distinctive character—The scyphi or wineglass-shaped portions of the plant are used. They are greyish white, about 1 inch long, with a hollow stem $\frac{1}{8}$ – $\frac{1}{4}$ inch in diameter, and a terminal cup about $\frac{1}{2}$ inch wide; the scyphi are sometimes proliferous. Taste, mucilaginous and slightly sweet. Odour, none. The plant is erroneously called a moss, as it belongs to the group of lichens.

CUP-PLANT. *Silphium perfoliatum*, Linn.

Fam. *Compositæ*.

Syn.—Indian Cup-plant, Ragged Cup.

Part used—Root.

Action—Tonic, diaphoretic, alterative. As a general restorative it has been found useful, also in fevers and spleen and liver affections. The decoction of the powdered root may be given in wineglassful doses, or the powder itself in 20-grain doses.

Distinctive character—Rhizome cylindrical, crooked, elongated, pitted and rough, with small roots; the transverse section exhibits large resin cells.

DAMIANA. *Turnera diffusa*, Willd.
Var. *aphrodisiaca*, Urb.

Fam. *Turneraceæ*.

Part used—Leaves. Imported from Central America.

Action—Aphrodisiac, diuretic, tonic. Is very largely prescribed on account of its aphrodisiac qualities, and there is no doubt that it has a very great general and beneficial action on the reproductive organs. It also acts as a tonic to the nervous system.

Preparations—Ext. Damian B P C. Dose, 5-10 grains. Ext. Damian Liq B P C. Dose, $\frac{1}{2}$ -1 drachm. Mist Damian Co B P C. Dose, 1-2 drachms.

Distinctive character—Leaves alternate, linear, wedge-shaped, shortly stalked, hairy, about $\frac{3}{4}$ -1 inch long and $\frac{1}{8}$ - $\frac{1}{4}$ inch broad, with a few serrate teeth, having recurved margins. Taste, bitter, aromatic, with a fig-like flavour.



CUCKOOPINT
(See page 116)



CUDWEED
(See page 116)



DANDELION
(See page 120)



DEVIL'S BIT
(See page 121)

DANDELION. *Taraxacum officinale*, Wiggers.
Fam. *Compositæ*.

Syn.—*Taraxacum Dens-leonis*, Desf., *Leontodon Taraxacum*, Linn.

Parts used—Root and leaves.

Action—Diuretic, tonic, and slightly aperient. It is chiefly used in kidney and liver disorders, and is perhaps one of the most generally prescribed remedies. It may be given in any form, but its beneficial action is best obtained when combined with other agents. A pleasant way of taking it is in the form of a substitute for coffee. The roasted roots are ground and used as ordinary coffee, giving a beverage tasting much like the original article, and certainly possesses most beneficial properties in cases of dyspepsia, gout, and rheumatism.

Preparations—Ext. Tarax. B.P.C. Dose, 5-15 grains. Ext. Tarax. Liq. B.P.C. Dose, $\frac{1}{2}$ -1 drachm. Succ. Tarax. B.P.C. Dose, 1-2 drachms.

DEER'S TONGUE. *Liatris odoratissima*, Willd.
Fam. *Orchidaceæ*.

Syn.—Vanilla Leaf, Wild Vanilla, *Trilisia odoratissima*, Cass

Part used—Leaves. Chiefly used in sachets.

Action—Diuretic, stimulant, tonic

Distinctive character—Leaves varying in size from the base of the plant upwards. Root leaves fleshy, 4-10 inches long, obovate-lanceolate, tapering below into a flattened stalk. Stem leaves oblong, clasping the stem at their base. The dried leaves have a strong odour of new mown hay.

DEVIL'S BIT.*Scabiosa succisa*, Linn.Fam. *Compositæ*.

Syn.—Ofbit.

Part used—Herb.

Action—Diaphoretic, demulcent, febrifuge. Makes a useful tea for coughs, fevers, and internal inflammations. This remedy is generally given in combination with others. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses, frequently repeated.

Distinctive character—Leaves opposite, stalked, oval, lanceolate, with scattered one-celled tubular hairs, and nearly sessile, oval, several-celled glands. Florets purplish, with four lobes. Receptacle hairy. Stems often purplish.

Culpepper says: "The root was longer until the devil bit it away, envying its usefulness to mankind. The herb helpeth those who are internally and externally bruised and it is very powerful against the plagues."

DILL.*Anethum graveolens*, Linn.Fam. *Umbelliferae*.

Syn.—Dill Seed, Dill Fruit, *Peucedanum graveolens*, Benth.

Part used—Dried ripe fruits.

Action—Carminative, stomachic. In children's complaints, such as flatulence, disordered digestion, &c., it is an excellent remedy, mostly given in the form of Dillwater. The oil may also be administered in doses of 1-5 drops on sugar.

Preparations—Aq. Aneth. Conc. B.P.: Dose, 5-15 minims. Aq. Aneth. Dest. B.P.: Dose, $\frac{1}{2}$ -1 drachm. Ol. Aneth. B.P.: Dose, 1-3 minims.

Distinctive character—Fruits oval, compressed, winged, about $\frac{3}{16}$ inch wide, with three longitudinal ridges on the back, and three dark lines or oil cells (vittæ) between them, and two on the flat surface. Taste, aromatic, resembling caraway, but distinct. Indian Dill Seed is narrower and more convex, with paler, more distinct ridges, and narrower wings. The essential oil it contains is not identical with that of European Dill.

DODDER.*Cuscuta Epithymum*, Murr.Fam. *Convolvulaceæ*.

Syn.—Lesser Dodder, Dodder of Thyme.

Part used—Herb. A parasite.

Action—Hepatic, laxative. Has been used in urinary complaints, kidney, spleen, and liver diseases.

Distinctive character—Stem thread-like, curled and twisted, without leaves, but with small globular clusters of flowers, about $\frac{1}{8}$ — $\frac{1}{4}$ inch in diameter at intervals. Taste, saline and slightly acid. Odour, none.

DOG-ROSE.*Rosa canina*, Linn.Fam. *Rosaceæ*.

Syn.—Wild Brier, Hip Tree, Cynosbatos.

Part used—Ripe fruit.

Use—A conserve made from the ripe fresh fruit has been official. It makes an excellent material for forming pillmasses. Contains Invert Sugar, Citric and Malic Acid.

Preparation—Conf. Ros. Can. B.P.C.

Distinctive character—Fruits oval, fleshy, hollow, scarlet when fresh, blackish when dried, with remains of the calyx teeth at the apex, seeds angular, whitish, densely covered with hairs. Taste of fruit, sweetish and acidulous.



DILL
(See page 121)



DODDER
(See page 122)



DOG-ROSE
(See page 122)



DYER'S GREENWEED
(See page 123)

DRAGON'S BLOOD.*Dæmonorops propinqua*, Becc.(And other species.) Fam. *Palmae*.

Syn.—*Dæmonorops Draco*, Blume. Climbing plants indigenous to Malaya and Sumatra.

Part used—Resin.

Action—Astringent, colouring. Its principal use is for colouring purposes in tooth powders, tinctures, plasters, &c. Also for colouring in varnishes and wood stains, &c.

Distinctive character—The plant produces small fruits the size of a cherry covered with scales from which exudes a red resin. This is mixed with water and melted, and is then poured into a cloth and pressed. The rounded mass or pudding bears the impress of the cloth and is known as lump Dragon's Blood. Sometimes it is imported in sticks wrapped in leaves and is called Reed, or in tears known as Zanzibar and Singapore Drop Dragon's Blood.

DWARF ELDER.*Sambucus Ebulus*, Linn.Fam. *Caprifoliaceæ*.

Syn.—Danewort, Wallwort.

Part used—Leaves.

Action—Expectorant, diuretic, diaphoretic, purgative. It is said to be very efficacious in dropsy. Dose of the decoction: A wineglassful three or four times a day.

Distinctive character — Leaves pinnate, leaflets longer than those of the common Elder, often with small stipulets at their base. Flowers white with pink anthers. Stem not woody. In the United States the name of Dwarf Elder is given to a different plant, viz., *Aralia hispida*, Vent. Fam. *Araliaceæ*.

DYER'S GREENWEED. *Genista tinctoria*, Linn.Fam. *Leguminosæ*.

Syn.—Greenweed, Dyer's Weed, Dyer's Broom, Woadwaxen.

Parts used—Twigs, leaves.

Action—Diuretic, cathartic, emetic. This plant has been successfully used as a remedy in dropsical affections, also in gout, rheumatism, and in albuminuria. The decoction may be given in wineglassful doses three to four times daily.

Distinctive character—Stems almost unbranched, about 6–8 inches long, angular, with erect linear-lanceolate, sessile, hairless leaves, about $\frac{3}{4}$ inch long and $\frac{1}{8}$ inch broad. Flowers, yellow, papilionaceous, in spikes terminating the stem. Taste, bitter. Odour, none.

ECHINACEA.*Echinacea angustifolia*, D.C.Fam. *Compositæ*.

Syn.—Black Sampson, Coneflower.

Part used—Root.

Action—Alterative, antiseptic. Useful in all diseases due to impurities in blood, such as boils, carbuncles, gangrene, &c., internally and externally. Is a good appetiser and improves digestion. Used in fermentative dyspepsia. Of special importance in typhoid and other fevers.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Root greyish brown, externally more or less twisted, furrowed longitudinally, $\frac{1}{4}$ – $\frac{1}{2}$ inch in diameter. The transverse section shows a thin brown bark, a yellowish porous wood in narrow wedges, with numerous slender black fibres which give a greyish appearance to the broken surface. Taste, slightly aromatic, bitterish, with a tingling sensation like Pellitory Root. Odour, none.

ELDER.*Sambucus nigra*, Linn.Fam. *Caprifoliaceæ*.

Syn.—Black Elder, European Elder.

Parts used—Bark, flowers, berries.

Action—Alterative, diuretic. An infusion of 1 ounce of bark or flowers in 1 pint of water is taken in wine-glassful doses. Has been successfully employed in epilepsy. Elderberry wine or juice taken hot is an old English remedy for colds.

Preparations—Fluid extract (Bark): Dose, $\frac{1}{2}$ –1 drachm. From Flowers: Aq. Sambuc. B.P.C.; Aq. Sambuc. Trip. B.P.C.; Ung. Sambuci B.P.C.; From Leaves: Ol. Sambuci Virid.

Distinctive character—Bark light grey, soft and corky externally, with wide fissures, inner surface white and smooth. The transverse fracture shows a pale brown, outer portions in thin layers, and a thinner, white, finely-radiate inner portion. Taste, sweetish at first, then bitter and nauseous. The flowers are wheel-shaped, small, with five oval obtuse segments, pale yellow when fresh, becoming of a pale brownish yellow when dried. Taste, mucilaginous. Odour, slight, but characteristic.

ELECAMPANE.*Inula Helenium*, Linn.Fam. *Compositæ*.

Syn.—Scabwort, Aunée (Fr.).

Part used—Root.

Action—Diaphoretic, diuretic, expectorant. Is used principally in combination with other remedies for cough, consumption, and pulmonary disorders generally. It is also alterative and tonic. The decoction of 1 ounce to 1 pint of boiling water is taken in wineglassful doses.

Preparations—Powdered root: Dose, $\frac{1}{2}$ –1 drachm. Fluid extract: Dose, $\frac{1}{2}$ –1 drachm. Inulin: Dose, 1–3 grains.



DWARF ELDER

(See page 124)



ELDER

(See page 126)



ELECAMPANE

(See page 126)



ERYNGO

(See page 130)

Distinctive character—Roots light grey, hard, horny, in cylindrical pieces of varying length, usually $\frac{1}{3}$ – $\frac{1}{2}$ inch in thickness, often attached to large sections of the crown of the root. The fracture is short, the transverse section shows a radiate structure, with numerous dark oil cells. Taste, aromatic, bitter, and acrid. The odour recalls that of Orris Root and Camphor. The root resembles that of Belladonna in colour and shape, but does not show a white surface when the epidermis is scraped as in Belladonna.

The plant is similar in appearance to Horseradish.

ELM.

Ulmus campestris, Smit.

Fam. *Urticaceæ*.

Part used—Bark.

Action—Astringent, demulcent, diuretic.

Distinctive character—The inner bark only is used, deprived of the corky layer; it is in thin strips $\frac{1}{10}$ – $\frac{1}{8}$ inch in thickness, externally of a rusty brown colour, and paler on the inner surface. Fracture laminate and fibrous. Taste, mucilaginous, astringent, and faintly bitter. Odour, none.

EMBELIA.

Embellia Ribes, Burm.

Fam. *Myrsinaceæ*.

Part used—Fruits.

Action—Tænicide, carminative, diuretic. Used by the East Indian natives in dyspepsia and rheumatic affections; but its reputation is due to its action of expelling tapeworms. The fruits (commonly known as seeds) in powder are given in doses of 1–3 teaspoonfuls, with milk, upon an empty stomach, and followed by a purgative.

Preparations—Powdered fruit: Dose, 1–4 drachms. Fluid extract: Dose, 1–4 drachms.

Distinctive character—The small globular fruits are about the size of white pepper, reddish brown,

striated longitudinally, with a small beak at the apex. The single seed is horny with a mildewed appearance, due to a minute crystalline powder; at the base it has a cup-like hollow. Taste, astringent and aromatic. Odour, imperceptible.

The above description applies to *Embelia robusta*, which is always supplied in commerce under the name of *E. ribes*. The latter is not striated longitudinally.

EPHEDRA. *Ephedra sinica*, Stapf.
 Ephedra equisetina, Bunge,
 and *Ephedra gerardiana*, Wall (Indian).
Fam. *Ephedraceæ*.

Syn.—Ma Huang.

Action—Has been used in China since ancient times for asthma and hay fever. Chief constituent, an alkaloid, Ephedrine, which may be administered by the mouth or hypodermically.

Preparations—Ext. Ephed. Liq. B.P.C. : Dose, $\frac{1}{4}$ –1 drachm. The alkaloid Ephedrin and Ephedrin Hydrochloride are used in compressed tablets and in nasal sprays.

Distinctive character—Slender ærial green stems jointed cane-like, in branches of about 20 tufts about 6 inches high. Leaves reduced to sheaths surrounding the stems, which terminate in a sharp recurved point with rough internodes.

ERGOT. *Claviceps purpurea*, Tul.
Fam. *Hypocreaceæ*.

Syn.—Ergot of Rye, Smut of Rye, Spurred Rye, *Secale cornutum*, Nees

Part used—Fungus

Action—Emmenagogue, hæmostatic, uterine stimulant. Largely used in menstrual disorders, as in leucorrhœa, dysmenorrhœa, amenorrhœa, for its stimulating action. Also an admirable remedy in hæmorrhage.

flooding, intestinal bleeding, &c. Of value in spermatorrhœa, gonorrhœa, and enlarged prostate.

Preparations—Ergot. Præp. B.P.C.: Dose, 5-15 grains. Ext. Ergot. B.P.C.: Dose, 1-4 grains. Ext. Ergot. B.P. 1914 (Ergotin): Dose, 2-8 grains. Ext. Ergot. Liq. B.P.: Dose, 10-20 minims. Inf. Ergot. Rec. B.P.C.: Dose, 1-2 fluid ounces. Tinct. Ergot. Ammon. B.P.C.: Dose, $\frac{1}{2}$ -1 drachm.

Distinctive character—The hard mycelium of the fungus known in commerce as Ergot, and formed at the expense of the grains of Rye, is purplish externally, $\frac{1}{2}$ -1 $\frac{1}{2}$ inch long, and $\frac{1}{8}$ - $\frac{3}{8}$ inch in diameter, cylindrical, compressed, tapering, with rounded ends, and with a longitudinal fissure down each side. Fracture short and horny. Interior whitish, with a purple tinge towards the outside. Odour, disagreeable. Good Ergot should be brittle and show no signs of mites. It requires to be kept chemically dry, preferably in bottles having quicklime in a hollow stopper. The Spanish is larger than the Russian, and is more esteemed.

ERYNGO.

Eryngium campestre, Linn.
Fam. Umbelliferae.

Syn.—Eringo, Seaholly

Part used—Root.

Action—Diaphoretic, diuretic, expectorant. It is mostly used in uterine irritation, bladder diseases, painful micturition, with frequent and ineffective attempts to empty the bladder.

Distinctive character—Root 2-4 inches long or more, transversely wrinkled, blackish brown, crowned with the bristly remains of leaf-stalks, sometimes branched above. Fracture spongy, and coarsely fibrous, with a small radiate yellow centre. Taste, sweetish, mucilaginous. Odour, none.

The root of the Seaholly, *Eryngium maritimum*, is also sold under the name of Eryngo Root.

ETERNAL FLOWER. *Helichrysum Stoechas*, D.C.
Fam. *Compositæ*.

Syn.—*Gnaphalium Stoechas*, Linn., *Gnaphalium citrinum*, Lam., *Stoechas citrina*, Goldilocks.

Part used—Tops.

Action—Expectorant, deobstruent. Used in colds.

Distinctive character—Stem shrubby. Leaves linear, revolute at the margins, whitish, tomentose beneath and sometimes above. Flowerheads arranged in a crowded corymb, ovate, shortly stalked, with the outer scales of the involucre yellow and shining, ovate, rather acute. Taste, warm, pungent, bitterish. Odour, when rubbed, agreeable.

EUCALYPTUS. *Eucalyptus globulus*, Labill.
Fam. *Myrtaceæ*.

Syn.—Blue Gum Tree.

Parts used—Leaves and oil distilled from leaves.

Action—Antiseptic, antispasmodic, stimulant. An Australian household remedy for many diseases and complaints. In England the oil is the preparation best known and most largely used. Its efficacy depends chiefly upon its antiseptic properties, which are extremely potent, though quite safe. In all fevers and febrile conditions the oil may be used freely externally and internally. It may be inhaled for asthma, diphtheria, sore throat, &c.

As a local application for ulcers, &c., 1 ounce should be added to 1 pint of lukewarm water. Its effect is stimulating, antiseptic, and corrective. For local injections, $\frac{1}{2}$ ounce to the pint is sufficient. Physicians report not only quick healing follows, but all offensive odours cease immediately. In this connection, it is most valuable as a local application in cancerous growths and wounds. Internally the Fluid Extract is used in scarlet, typhoid, and intermittent fevers, and the oil is often applied to the body freely at the same time. In croup and spasmodic throat troubles it may be used in a similar way.

Preparations—Tinct. Eucalypt. B.P.C.: Dose, $\frac{1}{4}$ –2 drachms. Ol. Eucalypt. B.P.: Dose, 1–3 minims. Neb. Eucalypt. B.P.C. Ung. Eucalypt. B.P.C. Vap. Eucalypt. Co. B.P.C. Eucalyptol B.P.C.: Dose, 1–3 minims.

Distinctive character—The leaves are tough, leathery, greyish-green, scimitar-shaped (or, more rarely, when obtained from the younger leaves or shoots, ovate and stalkless); 4–6 inches long and about 1–1 $\frac{1}{2}$ inch wide in the centre, shortly stalked and rounded at the base, with numerous transparent oil dots. Taste, aromatic and cooling. Flavour, characteristic, somewhat camphoraceous.

Eucalyptus Oil is distilled from several varieties of Eucalyptus in addition to *E. globulus*, amongst these being *E. Polybractea* and *E. Dumosa*.

A citron-scented Eucalyptus is obtained from *E. Maculata* var. *citriodora*, Hook., in Queensland.

EUCALYPTUS KINO.

Eucalyptus rostrata, Schlecht.

(And other species) Fam. *Myrtaceæ*.

Syn.—Kino Eucalyptus, Gum Eucalyptus, Red Gum.

Part used—Dried Juice

Action—Astringent and tonic. Employed with benefit in all affections of the mucous membrane of the stomach and bowels, and is a valuable remedy in cases of chronic dysentery and diarrhoea. Also used in the form of a gargle or lozenge for the tonsils and throat

Preparations—Powdered Gum Dose, 5–20 grains. Ext. Kino Eucalypt. Liq. B.P.C. Dose, $\frac{1}{2}$ –1 drachm. Tinct. Kino Eucalypt. B.P.C. Dose, 15–40 minims. Troch. Kino Eucalypt. B.P.C. Each lozenge contains 1 grain

Distinctive character—Dark, reddish brown, irregular pieces somewhat dusty. Taste, astringent; adheres to the teeth and colours the saliva red.

EUPHORBIA.*Euphorbia hirta*, Linn.Fam. *Euphorbiaceæ*.Syn.—Asthma-weed, Catshair, *E. pilulifera*.

Part used—Herb. Grown in India.

Action—Anti-asthmatic, pectoral. In Australia it is much esteemed as a remedy for coughs, bronchial and pulmonary disorders, but more especially for the prompt relief it affords in paroxysmal asthma. The infusion of $\frac{1}{2}$ ounce in 1 pint of boiling water is taken in tablespoonful doses.

Preparations—Tincture 1 in 5 : Dose, 10–30 minims. Ext. Euphorb. Liq. B.P.C. : Dose, 2–5 minims. Ext. Euphorb. : Dose, 1–2 grains.

Distinctive character—Stem slender, cylindrical, with bristly late, about $\frac{1}{2}$ the margin. in the axils of the leaves. Seeds very small, reddish, oblong, angular, with a wrinkled surface. Taste, bitter. Odour, none.

EUPHORBIVM.*Euphorbia resinifera*, Berg.Fam. *Euphorbiaceæ*.

Part used—The dried latex. Imported from Morocco.

Distinctive character—In irregular pieces of a dull yellowish or brownish hue and waxy surface, usually about $\frac{1}{2}$ inch in diameter, often perforated where it has formed around the spines of the fleshy plant. Taste, extremely acrid and persistent. The dust excites violent sneezing and is dangerous to inhale.

Employed as a drastic purgative ; also as an anti-fouling composition for ships.

EVENING PRIMROSE. *Oenothera biennis*, Linn.Fam. *Onagraceæ*.

Syn.—Tree Primrose.

Parts used—Bark and leaves.

Action.—Astringent, sedative. This drug has been tested in various directions, and Professor Scudder employed it with success in the treatment of gastrointestinal disorders of a functional origin. It has also proved of service in dyspepsia, hepatic torpor, and in female disorders associated with pelvic fulness. It is also recommended for whooping cough and spasmodic asthma. The dose ranges from 5–30 grains.

Distinctive character—Leaves oblong, lanceolate, 3–5 inches long and 1 inch or more wide, pointed, nearly entire at the margins, and furnished with short hairs. Taste, mucilaginous and slightly astringent. Odour, none

EYEBRIGHT.*Euphrasia officinalis*, Linn.Fam. *Scrophulariaceæ*.

Part used—Herb

Action—Slightly tonic, astringent. Is employed principally as a remedy in diseases of the sight, weakness of the eyes, ophthalmia, &c Combined with Golden Seal it makes a most excellent lotion for general disorders of the eyes

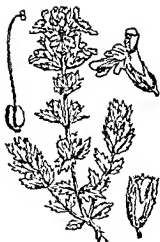
Preparation—Fluid extract · Dose, 1 drachm.

Distinctive character—Stems about 4–6 inches long, often branched below. Leaves opposite below, alternate above, about $\frac{1}{2}$ inch long and $\frac{1}{4}$ inch broad, lanceolate or nearly rhomboid above, with four to five teeth on each side. Flowers small axillary, whitish, two-lipped, with a yellow throat and four stamens. Taste, saline, bitter, and slightly astringent.



EVENING PRIMROSE

(See page 134)



EYEBRIGHT

(See page 134)



FENNEL

(See page 135)



FEVERFEW

(See page 137)

FENNEL.*Foeniculum vulgare*, Mill.Fam. *Umbelliferae*.

Syn.—Hinojo.

Part used—Seed.

Action—Stimulant, carminative, stomachic. Generally added to other medicines for flavouring purposes and used as a carminative, and as such it forms part of the well-known Compound Liquorice Powder.

Preparations—Aq. Foenic. Conc. B.P.C.: Dose, 5–15 minims. Aq. Foenic. Dest. B.P.C.: Dose, $\frac{1}{4}$ –1 fluid ounce. Liquid extract: Dose, 5–30 minims. Ol. Foenic. B.P.C.: Dose, $\frac{1}{2}$ –3 minims.

Distinctive character—The fruit is about $\frac{1}{10}$ inch long and $\frac{1}{16}$ inch broad, oblong, cylindrical, and slightly curved. Each half-fruit has four longitudinal ridges, the two lateral thicker than the dorsal. Taste, sweetish, aromatic. Odour, similar. The colour varies from greenish to brownish, but the greenish are most esteemed. Indian and German Fennel are usually rather smaller and straighter, and not quite so rounded at the ends. Persian and have a sweeter taste. Seeds are dark and bitter. Compound Liquorice Powder.

FEVERBUSH.*Garrya Fremontii*, Torr.Fam. *Cornaceæ*.

Syn.—Skunkbush, California Feverbush.

Part used—Leaves.

Action—Tonic, bitter, antiperiodic. The leaves are used in California as a substitute for Peruvian Bark and for similar purposes. The dose is 10–30 grains of the powder.

Distinctive character—Leaves short stalked, 1–3 inches long and nearly as broad, leathery, greyish green, entire at the margins, often with a point at the apex. Taste, bitter. Odour, slight.

FEVERFEW. *Chrysanthemum Parthenium*, Bernh.

Fam. *Compositæ*.

Syn. — *Pyrethrum Parthenium*, Sm., Featherfew, Featherfoil.

Part used—Herb.

Action—Aperient, carminative, bitter. It is largely used to promote the menses, expel worms, and in hysterical conditions. As an infusion of 1 ounce to 1 pint of boiling water, it is taken frequently in doses of half a teacupful.

Preparation—Fluid extract : Dose, 1–2 drachms.

Distinctive character—Stem finely furrowed, hairy. Leaves alternate, downy with short hairs, or nearly smooth, about $4\frac{1}{2}$ inches long and 2 inches broad; bipinnatifid, with serrate margins, the leaf stalk flattened above and convex beneath. Taste, bitter, nauseous. Odour, resembling that of tansy.

FIG.

Ficus Carica, Linn.

Fam. *Moracæ*.

Part used—Fleshy inflorescence (so-called fruit).

Action—Nutritive, emollient, demulcent, laxative. The fresh and dried fruits are used in constipation, and they form part of the official confection of Senna. Roasted figs have a place in domestic practice as a poultice for gumboils, boils, and carbuncles. A poultice of dried figs in milk is said to remove unpleasant odours from ulcers and cancers.

Preparations—Syr Fic. B P C. . Dose, $\frac{1}{2}$ –2 drachms. Syr. Fic. Co B.P.C. Dose, $\frac{1}{2}$ –2 drachms.

Distinctive character—The fleshy inflorescence, or *syconus*, called a fig, contains the minute ovaries or so-called seeds, each of which is the result of one of the single female flowers with which the cavity is filled. The male flowers occupy the minute tubular orifice at the apex of the fig.

FIGWORT.*Scrophularia nodosa*, Linn.Fam. *Scrophulariaceæ*.

Syn.—Rosenoble, Throatwort, Carpenter's Square.

Part used—Herb.

Action—Diuretic, depurative, anodyne. This is called the Scrofula plant, on account of its great value in all cutaneous eruptions, abscesses, wounds, &c. The leaves should be applied as a poultice, and an infusion of 1 ounce to 1 pint of boiling water, taken internally in half-wineglassful doses.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The herb has a square stem, opposite, stalked leaves, 4–5 inches long and $1\frac{1}{2}$ –2 inches broad, rounded, but unequal at the base and tapering to a point above, margins sharply but unequally serrate, the veins and veinlets prominent beneath and depressed above. Taste, bitter. Odour, narcotic. The knotty rhizome and acutely-pointed leaves distinguish this from the water figwort (*S. aquatica*).

FIVE-LEAF-GRASS.*Potentilla reptans*, Linn.Fam. *Rosacæ*.

Syn.—Cinquefoil, Fivefinger.

Part used—Herb.

Action—Astringent, febrifuge. The infusion of 1 ounce of herb in 1 pint of boiling water is used in wineglassful doses for diarrhœa, looseness of bowels, &c. Externally, as an astringent lotion.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –2 drachms.

Distinctive character—Stem slender, creeping, with internodes 2–4 inches long or more, leafstalks 1–2 inches long, with five leaflets, the central one free, the two lateral joined near the base, obovate-obtuse, bluntly serrate, about 2 inches across and $1\frac{1}{2}$ inch long, with scattered hairs on the veins and margins, veins prominent below. Taste, astringent. Odour, none.



FOXGLOVE
Digitalis Purpurea





FIGWORT
(See page 138)



FIVE-LEAF-GRASS
(See page 138)



FLUELLIN
(See page 140)



FENUGREEK
(See page 141)

FLEABANE.*Erigeron Canadense*, Linn.Fam. *Compositæ*.

Syn.—Canada Fleabane, Coltstail, Prideweed.

Parts used—Herb, seeds.

Action—Astringent, diuretic, tonic. Considered efficient in diarrhœa, gravel, and in many kidney affections. The infusion is very serviceable in such cases, given in doses of a wineglassful to a teacupful. It owes its virtues to a volatile oil.

Preparations—Oil : Dose, 2-5 drops. Fluid extract : Dose, $\frac{1}{2}$ -1 drachm.

Distinctive character—Stem unbranched, leaves oblanceolate, and short-stalked below, with five teeth, upper becoming linear and entire, usually 1-2 inches. Flowerheads, numerous, bell-shaped, about $\frac{1}{2}$ inch long and broad, whitish, shorter than the involucre, receptacle naked, fruits (*achenes*) flat, with fine bristly pappus. Taste, astringent, aromatic, and bitter. Odour, slight.

FLUELLIN.*Linaria Elatine*, Mill.Fam. *Scrophulariaceæ*.

Part used—Herb.

Action—Astringent. Recommended for internal bleeding, profuse menstruation, and bleeding of the nose. It consolidates and strengthens. The infusion (1 ounce to 1 pint) may be taken internally or applied to wounds.

Sharp-pointed Fluellin, one of the species of Toad Flax, has halberd shaped aviony leaves with solitary yellow flowers on long stalks. It is a trailing plant having similar properties to *Linaria vulgaris*, or erect Yellow Toad Flax.

FÆNUGREEK. *Trigonella Fænum-græcum*, Linn.
Fam. *Leguminosæ*.

Part used—Seeds. Imported from Morocco and Bombay.

Action—Emollient. Used externally as a poultice in abscess, boils, carbuncles, &c. Internally a decoction of 1 ounce of seeds in 1 pint of water is used in inflamed conditions of stomach and intestines. Its chief use is as an ingredient in cattle and horse condiments. It also enters into curry powders.

Distinctive character—Seeds brownish yellow, about $\frac{1}{8}$ inch long, oblong rhomboid, with a deep furrow almost dividing the seeds into two unequal lobes. Taste, recalling that of celery or lovage. Odour, similar.

The British *Trigonella purpuracens* is sometimes called Fœnugreek, but is quite a different species to the above.

FOOL'S PARSLEY. *Æthusa Cynapium*, Linn.
Fam. *Umbelliferae*.

Syn.—Dog Parsley, Dog Poison.

Part used—Herb.

Action—Stomachic, sedative. In gastro-intestinal troubles of infants, this has been found very useful, also in cholera infantum, convulsions, and summer diarrhœa.

Distinctive character—Leaves resembling those of Hemlock, but smaller, and the ultimate segments have brown points. The distinguishing mark for Fool's Parsley is a tag of three long slender stripes hanging down at the base of each cluster of flowers.

FOXGLOVE. *Digitalis purpurea*, Linn.
Fam. *Scrophulariaceæ*.

Syn.—Purple Foxglove.

Part used—Leaves.

Action—Cardiac tonic, sedative, diuretic. Used in cardiac complaints arising from kidney diseases, also in

dropsy and urinary suppression. Owing to its cumulative action it should be used with great care. The infusion of 1 drachm in 1 pint of boiling water is taken in teaspoonful to tablespoonful doses.

Preparations—Digit. Pulverat. B.P.: Dose, single administration, 3-10 grains; repeated administrations, $\frac{1}{2}$ -1 $\frac{1}{2}$ grains. Inf. Digit. Rec. B.P.: Dose, 1 $\frac{1}{4}$ -5 drachms; single dose, 1-4 fluid ounces. Pil. Digit. Co. B.P.C.: Dose, 1-2 pills. Tinct. Digit. B.P.: Dose, 5-15 minims; single dose, $\frac{1}{2}$ -1 $\frac{1}{2}$ drachms.

Distinctive character—Root leaves 8 or 9 inches long or more, and 3-4 inches broad, tapering below into a winged stalk, the veins running down into the winged parts; vein at an acute angle to the midrib, prominent beneath and depressed on the upper surface giving the leaf a reticulated surface. Hairs short, forming a densely velvety surface below, but more scattered above, those on the leafstalks long and silky. The margins irregularly crenate. Taste, very bitter. Odour of the dried leaves, tea-like.

FRINGETREE.

Chionanthus Virginica, Linn.

Fam. *Oleaceæ*.

Syn.—Old-man's-beard, Snowdrop Tree.

Part used—Rootbark.

Action—Alterative, diuretic, tonic. Used in bilious and typhoid fevers. Is prompt and efficacious in liver derangements, and also in jaundice and gall stones. In female disorders, useful in conjunction with Pulsatilla and other remedies. The infusion of 1 ounce to 1 pint of boiling water is taken in tablespoonful to wineglassful doses. Externally this is used as a lotion or injection.

Preparations—Fluid extract: Dose, 5-30 drops. Chionanthin: Dose, 1-3 grains.



FOOL'S PARSLEY

(See page 141)



FOXGLOVE

(See page 141)



FUMITORY

(See page 144)



GALE, SWEET

(See page 146)

Distinctive character—The root bark occurs in irregular quilled pieces 2-3 inches long and about $\frac{1}{8}$ inch thick, externally dull brown with irregular concave scars, the inner surface quite smooth and bright buff. The transverse fracture short, pale buff colour, dense; the inner layer with projecting bundles of stone cells. Taste, very bitter. Odour, none.

FROSTWORT. *Helianthemum Canadense*, Michx.

Fam. *Cistaceæ*.

Syn.—Rock Rose, Frostweed, *Cistus Canadensis*, Linn.

Part used—Herb.

Action—Alterative, tonic, astringent. Internally it is used as a cure for scrofula. The infusion of 1 ounce to 1 pint of boiling water is taken freely in doses of a wineglassful. It is also used externally as a wash for ulcers, &c.

Preparation—Fluid extract: Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Twigs, slender, purplish brown, with opposite leaf scars. Leaves linear, oblong, about $\frac{3}{8}$ – $\frac{5}{8}$ inch long, greyish green, due to a whitish covering of tufted hairs; fertile apetalous flowers in small clusters. Fruit small, ovate, triangular, brown, polished, containing a few dull brown angular seeds. Taste, astringent and bitter. Odour, none.

FUMITORY.

Fumaria officinalis, Linn.

Fam. *Fumariaceæ*.

Syn.—Earth Smoke.

Part used—Herb.

Action—Slightly tonic, diuretic, aperient. Used chiefly in stomach derangements, liver complaints, and in skin affections. The infusion may be freely taken in doses of a wineglassful every two to three hours.

Preparation—Fluid extract—Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stems angular. Leaves twice pinnate, the ultimate segments linear, obtuse or pointed, not hairy. Flowers slender, pink, in short spikes, irregular, with two bundles of three stamens each. Fruit globular, depressed, containing one seed. Taste, bitter, saline and unpleasant.

GALANGAL.*Alpinia officinarum*, Hance.Fam. *Zingiberaceæ*.

Syn.—Galanga, East India Root.

Part used—Root. Cultivated in S.E. China.

Action—Carminative, stimulant. Is especially useful in dyspepsia, preventing fermentation and removing flatulence. The decoction of 1 ounce in 1 pint of boiling water may be taken in tablespoonful to wineglassful doses. The powder is used as a snuff.

Preparations—Powdered root : Dose, $\frac{1}{4}$ – $\frac{1}{2}$ drachm.
Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Rhizome dark reddish brown, cylindrical, about $\frac{1}{2}$ – $\frac{3}{4}$ inch in diameter and 1½–3 inches long, marked at short intervals with raised rings or scars of leaf bases. Fracture hard and tough. The transversely cut surface is paler than the outside with a darker central column. Taste, pungent and spicy. Odour, agreeable, recalling that of ginger.

Greater Galangal, imported from Java, is larger and paler and is less pungent.

GALBANUM. *Ferula galbaniflua*, Boiss. & Buhse.(And other species.) Fam. *Umbelliferae*.

Syn.—Gum Galbanum.

Part used—Gum-resin. Imported from Persia and Levant.

Action—Stimulant, resolvent. It has been used internally in hysteria, rheumatism, chronic affections of mucous air passages, and is given in doses of 10–30

grains, mostly in emulsion. Externally it forms part of plasters and ointments.

Preparation—Pil. Galban. Co. B.P.C.: Dose, 1-2 pills.

Distinctive character—The gum-resin is usually formed of an agglomeration of tears, some of which are translucent, and pale bluish green, and are intermixed with transverse sections of the root (Levant), or mixed with fruits and stalks (Persian). The finest kind, not often obtainable, occurs in friable masses of loosely agglomerated, yellowish or brownish, small tears, opaque and yellowish white internally, with a slight musky as well as turpentiney odour, the latter odour prevailing in the commoner kind. A piece of Galbanum immersed in water will give a blue fluorescence if a drop of liquid ammonia is added, indicating the presence of umbelliferone.

GALE, SWEET.

Myrica Gale, Linn.

Fam. *Myricaceæ*.

Syn.—Dutch Myrtle, Bog Myrtle.

Part used—Shrub.

Action—Aromatic, astringent.

Distinctive character—Stem shrubby. Leaves leathery, lanceolate-obovate, about 1 inch long and $\frac{1}{2}$ inch wide, furnished with small resinous glands. Taste, aromatic, astringent. Odour, pleasant, distinctive, recalling that of bay leaves.

GALLS.

Quercus infectoria, Olivier.

Fam. *Fagaceæ*.

Syn.—Nutmalls, Blue Galls, *Gallæ Ceruleæ*.

Part used—Excrescences on *Quercus infectoria*, Oliv., by the wasp *Cynips gallæ-tinctoriæ*, Oliv.

Action—Astringent. Have been used in dysentery, diarrhoea, cholera, and passive hæmorrhages, &c. As

an injection in gonorrhœa, gleet, leucorrhœa, &c., the infusion may be used. Also as a gargle in relaxed throat.

Preparations—Powdered galls : Dose, 10–20 grains. Tinct. Gall. B.P.C. : Dose, $\frac{1}{2}$ –2 drachms. Liq. extract : Dose, 5–20 minims. Ung. Gall. B.P.C. Ung. Gall. c Opio B.P.C..

Distinctive character—The Aleppo or Turkey Oak Galls are spherical from $\frac{1}{16}$ – $\frac{1}{8}$ inch in diameter, smooth, but furnished in the upper half with small pointed knobs. in an irregular zone, bluish or olive green and heavy if the insect has not escaped, but perforated near the middle with a round hole, and yellowish brown in colour and lighter in weight, when it has done so. Taste, very astringent, and slightly acid, afterwards sweet. Odour, none. Contain 50–70 per cent. tannic acid. Chinese and Japanese galls are grotesquely shaped, covered with a thick grey velvet down.

GAMBOGE.

Garcinia Hanburyi, Hook, f.

Fam. *Guttiferae*.

Syn.—Camboge, Gutta Cambodia, Gutta Gamba,

Part used—Gum-resin. Imported from Siam.

Action—Purgative. Is seldom employed alone, but acts well and safe in combination with cathartics, and is useful wherever such are needed, as it reinforces their action. Dose, $\frac{1}{2}$ –2 grains

Distinctive character—The gum-resin is imported in the form of cylindrical sticks 4–8 inches long and 1–2 $\frac{1}{2}$ inches in diameter, bearing the striated markings of the interior of bamboo in which it is collected. The transverse fracture, if the Gamboge is of good quality, is clean and smooth, not gritty, deep orange brown, and opaque. Rubbed with water it gives a yellow emulsion. Fracture conchoidal. Taste, very acrid. The powder excites sneezing.

Indian Gamboge is derived from *Garcinia Morella*, Desr., and has similar properties to those of the Siam variety.

GARLIC.*Allium sativum*, Linn.Fam. *Liliaceæ*.

Part used—Bulb.

Action—Diaphoretic, diuretic, expectorant. Garlic juice is made into a syrup with honey or sugar and given with advantage in coughs, colds, and asthma.

Preparations—Fresh bulb: Dose, $\frac{1}{2}$ –2 drachms. Succ. Allii B.P.C.: Dose, $\frac{1}{2}$ –1 drachm. Syr. Allii B.P.C.: Dose, $\frac{1}{2}$ –2 drachms. Tinct. Allii: Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The bulb of Garlic is compound, containing, between membranous scales, a number of smaller bulbs or "cloves." Taste, like onions, but much stronger.

GELSEMIUM.*Gelsemium sempervirens*, Ait.Fam. *Loganiaceæ*.

Syn.—*Gelsemium nitidum*, Yellow Jasmine, Wild Woodbine.

Part used—Root.

Action—Arterial sedative, diaphoretic, febrifuge, antispasmodic. In small doses allays nervous excitement and irritation. Used in inflammation of bowels, diarrhœa, dysentery, but with great success in neuralgia, toothache, insomnia, wherever a sedative is called for. In pelvic disorders of women it is a favourite remedy. In large doses it depresses the nervous system and gives rise to convulsions and toxic symptoms.

Preparations—Ext. Gelsem. B.P.C.: Dose, $\frac{1}{2}$ –2 grains. Ext. Gelsem. Liq.: Dose, 5–10 minims. Tinct. Gelsem. B.P.C.: Dose, 5–15 minims. Powdered root: Dose, $\frac{1}{4}$ –1 grain.

Distinctive character—The root is often mixed with the underground stem, the latter distinguished by its distinct pith, the straight form, and the purplish, longitudinal lines on the bark. The root is usually more or less tortuous, brown and smooth, with a thin bark and woody centre composed of porous woody wedges, and

rather broad medullary rays
showing in the bark a few
Taste, slightly bitter. Odour

GENTIAN.*Gentiana lutea*, Linn.Fam. *Gentianaceæ*.

Part used—Root. Grows abundantly in France and Spain.

Action.—Tonic. Deservedly the most popular of tonic medicines. Being a simple bitter it may be given in all cases of weakness of digestive organs, general debility, female weakness, hysteria, &c.

Preparations—Powdered root : Dose, 10–30 grains. Ext. Gent. B.P. : Dose, 2–8 grains. Inf. Gent. Co. Conc. B.P. : Dose, $\frac{1}{2}$ –1 drachm. Inf. Gent. Co. Rec. B.P. : Dose, $\frac{1}{2}$ –1 fluid ounce. Mist. Gent. Acid. B.P.C. : Dose, $\frac{1}{2}$ –1 fluid ounce. Mist. Gent. Alk. B.P.C. : Dose, $\frac{1}{2}$ –1 fluid ounce. Tinct. Gent. Co. B.P. : Dose, $\frac{1}{2}$ –1 drachm. Ext. Gent. Liq. : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The root is cylindrical, brown, 1 foot or more in length, or broken up into shorter pieces, usually $\frac{1}{2}$ –1 inch thick, the upper portion marked with numerous rings, the lower longitudinally wrinkled, tough and flexible, internally of an orange brown tint, uniformly spongy. Taste, very bitter. Odour, strong and distinctive. When fresh the roots are almost white internally, but develop the brown colour and odour during the drying.

GENTIAN, ENGLISH. *Gentiana campestris*, Linn.Fam. *Gentianaceæ*.

Syn.—Felwort, Baldmoney, Field Gentian.

Parts used—Root, herb.

Action—Bitter tonic. For uses see Gentian.

Distinctive character—Herb, 4–6 inches high, branched above, leaves opposite, ovate-lanceolate, or ovate-spatulate below, with entire margins. Flowers bluish purple, tubular, with four segments. Calyx segments five, nearly equal. Taste, bitter. Odour, none.

GERMANDER. *Teucrium Chamaedrys*, Linn.
Fam. *Labiata*.

Syn.—Chasse fièvre (Fr.), Petit Chêne (Fr.).

Part used—Herb.

Action—Stimulant, tonic, diaphoretic, diuretic. Has been employed in rheumatism, gout, intermittent fevers, scrofula, and skin diseases. See Water Germander.

Distinctive character—Stem 1-2 feet long. Leaves dark green, shining above, ovate, $\frac{1}{2}$ -1 $\frac{1}{4}$ inch long and $\frac{1}{4}$ - $\frac{1}{2}$ inch broad, with oblong, obtuse teeth and a wedge-shaped entire base. Floral leaves nearly entire. Flowers purplish red, upper lip deeply bifid, with projecting stamens. Taste, bitter. Odour, none.

GINGER. *Zingiber officinale*, Rosc.
Fam. *Zingiberaceæ*.

Part used—Root.

Action—Stimulant, carminative, expectorant. Is chiefly used in combination with other remedies, but should be taken alone in cases of colds, spasms, flatulence, &c., in doses of 10-20 grains in warm water sweetened.

Preparations—Oleores. Zingib. B.P.C.: Dose, $\frac{1}{4}$ -1 grain. Syr. Zingib. B.P.: Dose, $\frac{1}{2}$ -2 drachms. Tab. Zingib. Co. B.P.C.: Dose, 1-2 tablets. Tinct. Zingib. Fort. B.P.: Dose, 5-10 minims. Tinct. Zingib. Mit. B.P.: Dose, $\frac{1}{2}$ -1 drachm. Powdered root: Dose, 5-15 grains.

Distinctive character—The finest Ginger is cultivated in Jamaica and has the best aroma. It is freed from the roots, peeled and dried in the sun. This is known as Unbleached Jamaica Ginger. Bleached Ginger is (h renders the root les n Ginger is generally thicker than Jamaica and has both pungency and aroma. African Ginger is generally unscraped, giving it

a brown colour. It is more pungent in taste, with little aroma. Fracture pale buff, starchy and fibrous, sometimes horny. Taste, pungent and aromatic. Odour, characteristic.

GINGER, WILD.*Asarum Canadense*, Linn.Fam. *Aristolochiaceæ*.

Syn.—Indian Ginger, Canadian Snakeroot.

Part used—Rhizome.

Action—Expectorant, carminative, stimulant. As a carminative it is useful in all painful spasms of the bowels and stomach. In colds or in amenorrhœa from cold it is a valuable stimulant. The infusion of $\frac{1}{2}$ ounce of the powdered root in 1 pint of boiling water produces copious perspiration, when taken hot. The powder may be taken dry in doses of 20–30 grains.

Distinctive character—Rhizome slender, about 4 inches long and $\frac{1}{2}$ inch thick, quadrangular or almost two-edged, wrinkled, greyish or purplish brown. Fracture short, whitish rootlets about $\frac{1}{2}$ inch distant on the nodes, scarcely branched. Taste, bitterish and pungent and aromatic. Odour, aromatic.

GINSENG.*Panax quinquefolium*, Linn.Fam. *Araliaceæ*.Syn.—*Aralia quinquefolia*, Decne. and Pl.

Part used—Root.

Action—Tonic, stimulant. Useful in loss of appetite, stomach and digestive affections, arising from mental and nervous exhaustion. The Chinese ascribe wonderful medicinal virtues to it.

Dose, 15 grains or more immediately after meals.

Distinctive character—Root, spindle-shaped, pale brownish yellow, 2–3 inches long, and about $\frac{1}{2}$ inch in diameter, ringed above, divided into two or three equal

branches which are wrinkled longitudinally. Fracture short, reddish
medull
aromatic. Odour, imperceptible.

GLADWIN.*Iris foetidissima*, Linn.Fam. *Iridaceæ*.

Syn.—Stinking Gladwyn, Gladwine.

Part used—Root.

Action—Antispasmodic, cathartic, anodyne. Occasionally used as a purgative; said to relieve cramps, convulsions and pains, stomachic and rheumatic.

Dose, 5–30 grains.

GLEDITSCHIA.*Gleditschia triacanthos*, Linn.Fam. *Leguminosæ*.Syn.—*Gleditschia Ferox*, C. Koch.

Parts used—Leaves and twigs.

Action—Narcotic, anodyne, mydriatic. An alkaloid “gleditschine,” also named “stenocarpine,” was introduced in the end of the '70's as a local anæsthetic and mydriatic. Since then very little has transpired about its properties and uses.

GOA.*Andira Araroba*, Aguiar.Fam. *Leguminosæ*.

Syn.—Araroba, Bahia Powder, Brazil Powder, Ring-worm Powder, Chrysarobin.

Action—Tæniifuge, alterative, detergent. It is used occasionally in the Indies for tapeworm. European medical men use it because of its chrysophanic acid, in skin diseases, such as eczema, psoriasis, acne, &c. The powder is mixed with vinegar, lemon juice, or glycerine to form a paste and applied to the skin. It is also used in form of a paint or ointment.



GENTIAN, English
(See page 149)



GERMANDER
(See page 150)



GOLDEN ROD
(See page 154)



GOUTWORT
(See page 156)

Preparation—Ointment (1 in 16).

Distinctive character—Goa or Araroba is found in longitudinal fissures in the trunk of the tree. After felling, the tree is split with an axe and yellowish powder scraped out combined with splinters of the wood and vegetable debris. This Goa Powder is purified by sifting and powdering and extracting the residue with benzine and other solvents; this forms purified Chrysarobin. Goa Powder should yield from 50-80 per cent. of purified Araroba or Chrysarobin. The powder is very irritating to the nose and eyes and mucous membranes generally.

GOAT'S RUE.

Galega officinalis, Linn.

Fam. *Leguminosæ*.

Part used—Herb.

Action—Galactagogue, diuretic, vermifuge.

Dose, 5-20 grains.

Distinctive character—Stem branched. Leaves pinnate, $\frac{1}{2}$ -2 inches long, with six to eight pairs of lanceolate leaves and a terminal one, each furnished with a terminal point (mucro). Stipules half-arrow-shaped. Flowers pale purplish or white, in axillary racemes. Legumes almost cylindrical. Taste, bitter and astringent. Odour, none.

GOLDEN ROD.

Solidago Virgaurea, Linn.

Fam. *Compositæ*.

Part used—Leaves.

Action—Aromatic, carminative, stimulant. Allays sickness due to weakness of stomach, and also promotes perspiration. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses, repeated frequently.

Preparation—Fluid extract: Dose, $\frac{1}{2}$ -1 drachm.

Distinctive character—Stem somewhat angular. Leaves lanceolate and stalked near the root, narrower

on the stem, $2\frac{1}{2}$ – $3\frac{1}{2}$ inches long and $\frac{1}{4}$ – 1 inch broad, sometimes slightly toothed and undulated at the margin, with very short hairs. Flowerheads golden yellow, narrow, about $\frac{1}{4}$ – $\frac{1}{2}$ inch long, receptacle honeycombed, pappus hairy not feathery. Taste, acrid and bitter. Odour, when dry, agreeable, slightly aromatic.

GOLDEN SEAL.*Hydrastis canadensis*, Linn.Fam. *Ranunculacæ*.

Syn.—Orange Root, Yellow Root.

Part used—Root. Gathered in the autumn

Action—Tonic, laxative, alterative, detergent. Since about 1847 Golden Seal has figured conspicuously in the botanic practice. The name was given to this plant by Thomsonians, who employed the root. The demand for “concentrations” was the means of discovering the two alkaloids contained in this drug—Hydrastine, the white, and Berberine, the yellow—besides others of less value. For many years these and the powdered root were the chief forms administered. Latterly, however, the drug in the form of a fluid extract is the most used and popular. It is a very valuable remedy in disordered states of the digestive apparatus. As a general bitter tonic it is applicable to debilitated conditions of mucous tissues. As a remedy for various gastric disorders it takes a leading place, acting very beneficially in acute inflammatory conditions. It will be found of value in all cases of dyspepsia, biliousness, and debility of the system. It is especially indicated in catarrhal states of the mucous membranes, gastric irritability, and passive hæmorrhages from the pelvic tissues. In the second stage of gonorrhœa it should be used as an addition to other injections. Externally it is used as a lotion in treatment of eye affections and as a general cleansing application.

Preparations—Powdered root. Dose, 10 grains.
Elix. Viburn et Hydrast. B.P.C.: Dose, $\frac{1}{4}$ – 1 drachm.

Ext. Hydrast. B.P.C. (Hydrastin) : Dose, $\frac{1}{2}$ –2 grains.
 Ext. Hydrast. Liq. B.P.C. : Dose, 5–15 minims. Tinct.
 Hydrast. B.P.C. : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The rhizome is short, about $1\frac{1}{2}$ inch in length, knotty with the bases of stems, and about $\frac{1}{8}$ – $\frac{1}{4}$ inch in diameter, often furnished with abundance of rootlets. Fracture greenish yellow, showing a radiate woody centre, with broad medullary rays. Taste, very bitter. Odour, strong and disagreeable.

GOLD THREAD.

Coptis trifolia, Salisb.

Fam. *Ranunculaceæ*.

Syn.—Mouth Root, Vegetable Gold.

Part used—Root.

Action—Bitter tonic. Would be more used than it is, if its good qualities were better known. It may be given alone or in combination with other suitable medicines. It promotes digestion, improves the appetite, and acts as a general stimulant to the system. In convalescence it is highly beneficial.

Preparations—Powdered root : Dose, 10–20 grains.
 Fluid extract : Dose, $\frac{1}{4}$ –1 drachm.

Distinctive character—Rhizomes thread-like, golden yellow, matted, with very small roots. Leaves stalked, tufted, with slender stalks, evergreen, strongly veined, three parted, with obovate cuneate segments and crenate, pointed teeth. Taste, very bitter. Odour, slight.

GOUTWORT.

Ægopodium Podagraria, Linn.

Fam. *Umbelliferae*.

Syn.—Goutweed, Ashweed, Ground Ash, Herb-Gerarde.

Part used—Herb.

Action—Diuretic, sedative. Recommended internally for aches in joints, gouty and sciatic pains. Also used externally as a fomentation. Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Leaves with long stalks, divided once or twice into three-stalked leaflets, which are about 2 inches long and about $1\frac{1}{2}$ inch broad, have unequal sides, are acutely pointed, and are twice serrate at the margin; the veins are at an acute angle and prominent beneath. Leafstalks channelled above, and keeled beneath. Root creeping. Taste, saline. Odour, none.

GRAINS OF PARADISE.

Aframomum Melegueta, Ros.

Fam. *Zingiberacea*.

Syn.—Guinea Grains.

Part used—Seeds. Imported from West Africa.

Action—Stimulant and condiment principally used in veterinary preparations.

Description—Small hard, shining seeds, oyster-shell shape, red brown colour, with aromatic odour and pungent taste of Ginger and Cayenne.

GRAVEL ROOT. *Eupatorium purpureum*, Linn.

Fam. *Compositæ*.

Syn.—Gravelweed, Queen-of-the-meadow Root.

Part used—Root.

Action—Diuretic, stimulant, tonic. Used principally in the treatment of gravel, stone in the bladder and affections of the kidneys and urinary organs. It is also a nerve tonic.

Preparation—Fluid extract: Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Rhizome $\frac{1}{2}$ –1 inch in diameter, very hard and tough, with a thin greyish brown bark and thick whitish wood, not visibly porous, often hollow in the centre, and with wide medullary rays. The rhizome has short lateral branches all furnished with crowded tough woody roots, about $\frac{1}{8}$ inch in diameter, and several inches long. Taste, bitter, astringent, and slightly acrid.

GRINDELIA. *Grindelia camporum*, Greene.
Fam. *Compositæ*.

Syn.—*Grindelia robusta*, Nutt., Gum Plant, Hardy Grindelia, Scaly Grindelia.

Part used—Herb. Grown in California.

Action—Anti-asthmatic, diuretic, tonic. Very largely employed in America in the treatment of asthmatic and bronchial affections, also in whooping cough and kidney diseases. In asthma, &c., it reduces the violence and frequency of the paroxysm. Guy's Hospital uses a mixture of Ext. Grindel. Liq. B.P.C. $\frac{1}{2}$ drachm, Ext. Glycyrrh. Liq. B.P.C. 1 drachm, mucilage to 1 ounce.

Preparations—Ext. Grindel. Liq. B.P.C. : Dose, 10–20 minims. Solid extract : Dose, 1–15 grains.

Distinctive character—Grindelia in commerce consists of the following stems of *G. camporum*, Greene, formerly referred to, *G. robusta*, Nutt., and of *G. squarrosa*, Nutt. The leaves in the former are broad, and in the latter narrowed at the base, leathery, brittle, serrated at the margins, veins at an acute angle, not very prominent below, lanceolate, about $2\frac{1}{2}$ –4 inches long and $\frac{1}{2}$ –1 inch broad, not hairy. Flowerheads globular, about $\frac{3}{4}$ inch in diameter, with yellow florets, without hairy pappus, scales of the involucre reflexed, linear, pointed. Taste, aromatic, bitterish. Odour, slight.

GROUND IVY. *Glechoma hederacea*, Linn.
Fam. *Labiatae*.

Syn.—Gill-go-over-the-ground, Alehoof, Haymaids, *Nepeta glechoma*, Benth.

Part used—Herb.

Active : 'ic, tonic. Useful in kidney
Also used as an anti-
Yarrow or Chamomile

Flowers it makes an excellent poultice for abscesses, gatherings, and tumours. The infusion of 1 ounce in 1 pint of boiling water is taken in wineglassful doses.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stem quadrangular, unbranched, 6 or more inches long, with stalked, opposite, somewhat kidney-shaped leaves deeply and obtusely crenate at the :
 with many-cell
 or four togethe
 often have a
 Odour, strong, aromatic.

GROUND PINE, AMERICAN.

Lycopodium complanatum, Linn.

Fam. *Lycopodiaceæ*.

Distinctive character—Stem long, creeping, yellowish green, scaly, about $\frac{1}{2}$ inch diameter, giving off at intervals erect, fan-shaped forked branches, with minute, scale-like leaves, leaving only the sharp tips free, the branches bearing fructification in the form of a stalked tuft of four to five cylindrical spikes consisting of spore cases in the axils of minute bracts. Stem rooting below at long intervals, the roots pale, wiry, and slightly branched. Taste, slightly turpentiney. Odour, aromatic.

Properties similar to the European variety (below).

GROUND PINE, EUROPEAN.

Ajuga Chamæpitys, Schreb.

Fam. *Labiataæ*.

Part used—Leaves.

Action—Stimulant, diuretic, emmenagogue. Forms a good remedy, combined with other suitable herbs, for gout and rheumatism. Also useful in female disorders. The infusion of 1 ounce to 1 pint of boiling water is taken in tablespoonful doses, frequently repeated.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –2 drachms.

Distinctive character—Herb bushy, 3-6 inches high, very hairy, with deeply trifid leaves having linear entire segments, with single flowers in the axils of the leaves. Corolla yellow, with dark spots. Lower leaves lanceolate, scarcely divided. Taste and odour, aromatic and turpentiney.

GROUNDSEL.*Senecio vulgaris*, Linn.Fam. *Compositæ*.

Syn.—Grounsel.

Part used—Herb.

Action—Diuretic, diaphoretic. Relieves bilious pains and in a strong infusion acts as a purgative and an emetic. Dose, $\frac{1}{2}$ -1 drachm.

Distinctive character—Stem angular, branched. Leaves oblong, wider and clasping at the base, with short lateral angular-toothed lobes. Flowerheads about $\frac{1}{2}$ inch long and $\frac{1}{8}$ inch broad, cylindrical, with black-tipped linear, involucral scales. Florets all tubular, receptacle dotted, not hairy. Taste, saline. Odour, none.

GUAIACUM.*Guaiacum officinale*, Linn.
and *Guaiacum sanctum*, Linn.Fam. *Zygophyllaceæ*.

Syn.—Lignum Vitæ, Lignum Sanctum.

Parts used—Wood and resin.

Action—Diaphoretic, alterative. Is considered a valuable remedy in gout, chronic rheumatism, impurities of the blood, &c. It is generally used in conjunction with Sarsaparilla and enters into most blood-purifying compounds. The dose of the infusion (of wood) of 1 ounce to 1 pint of boiling water is a wineglassful.

Preparations—From wood: Liquid extract: Dose, $\frac{1}{4}$ -1 drachm. Ingredient in Dec. Sarsae Co. From resin: Conf. Guaiac. Co. B.P.C.: Dose, 1-2 drachms. Mist. Guaiac. B.P.C.: Dose, $\frac{1}{2}$ -1 fluid ounce. Tab. Guaiac. et



GROUND IVY

(See page 158)



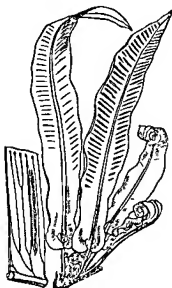
GROUND PINE, European

(See page 159)



GROUNDSEL

(See page 160)



HARTSTONGUE

(See page 161)

Sulph. B.P.C. : Dose, 1-3 tablets. Tinct. Guaiac. B.P.C. : Dose, $\frac{1}{2}$ -1 drachm. Tinct. Guaiac. Ammon. B.P.C. : Dose, $\frac{1}{2}$ -1 drachm. Troch. Guaiac. Res. B.P.C. Resin : Dose, 5-15 grains.

Distinctive character—The wood is usually sold in shavings or raspings. The heart wood, of a dark greenish brown, is heavy and sinks in water ; it has an aromatic and irritating taste. Odour, slightly aromatic when rubbed or warmed. The Guaiacum Resin is produced by firing the logs and collecting the melted resin. The yield is about 20 per cent. Generally imported in large blocks, which are covered with a greenish powder.

GUARANA.

Paullinia Cupana, H., B. & K.

Fam. *Sapindaceæ*.

Syn.—Brazilian Cocoa, Uabano, Uaranazeiro, *Paullinia sorbilis*, Mart.

Part used—Seeds.

Action—Nervine tonic, stimulant. This drug owes its properties to the Caffeine it contains, and for this reason will be found serviceable in most cases of headache, particularly those caused by menstrual derangements. Its action is in some cases diuretic, and as such it finds use in rheumatic complaints and lumbago.

Preparations—Powdered Guarana : Dose, 10-60 grains. Elix. Guaran. B.P.C. : Dose, $\frac{1}{2}$ -2 drachms. Liquid Extract : Dose, $\frac{1}{2}$ -1 drachm. Tinct. Guaran. B.P.C. : Dose, $\frac{1}{2}$ -2 drachms.

Distinctive character—Usually in cylindrical or sausage-shaped rolls, about $1\frac{1}{2}$ inch thick and several inches long, formed of the broken seeds beaten into a paste and dried. Taste, astringent and bitterish, then sweet. Odour, recalling that of chocolate. A popular stimulant in Brazil among the natives, who grate a small quantity into the palm of the hand. This is swallowed, being washed down with water.

HAIR CAP MOSS.*Polytrichum Juniperinum*, Willd.Fam. *Musci*.

Syn.—Bearsbed, Ground Moss, Robinsrye.

Part used—Plant.

Action—Diuretic. Possessing but very little smell and taste, it produces no disagreeable sensations. It is a very valuable and important remedy in dropsy, urinary obstruction and suppression. The infusion is taken in wineglassful doses.

Distinctive character—Stems slender, unbranched, 2-3 inches long, with small short awl-shaped, red-tipped leaves, overlapping, and crowded in the upper part of the stem. Fruit stalks when present terminating in a cylindrical, four-angled capsule containing spores.

HARTSTONGUE. *Scolopendrium vulgare*, Sym.Fam. *Filices*.Syn.—*Asplenium Scolopendrium*, Linn., *Phyllitis Scolopendrium*, Greene

Part used—Herb.

Action—Diuretic, laxative, pectoral. Specially recommended for removing obstructions from the liver and spleen, also for removing gravelly deposits in the bladder. The decoction is made of 2 ounces to 1 pint of water. Dose, a wineglassful

Distinctive character—Fronds stalked, about 1½-2 feet long and about 1½-2 inches wide, with transverse simple veins, and linear sori of spore-cases, ½-¾ inch long, in transverse series at the back. Taste, unpleasant. Odour, none.

HAWTHORN.*Cratægus Oxycantha*, Linn.

Syn.—English Hawthorn, Haw.

Fam. *Rosaceæ*.

Part used—Fruit.

Action—Cardiac, tonic. This drug is claimed to be a curative remedy for organic and functional heart disorders such as dyspnoea, rapid and feeble heart action, hypertrophy, valvular insufficiency, and heart oppression. The dose is from 2–15 grains three to four times a day. Generally prescribed with *Cactus grandiflora*.

Preparations—Fluid extract: Dose, 10–15 drops.

HEARTSEASE.*Viola tricolor*, Linn.

Syn.—Wild Pansy.

Fam. *Violaceæ*.

Part used—Herb.

Action—Diaphoretic, diuretic. Used in blood disorders and in catarrhal affections. Its chief use is for moist cutaneous eruptions in children. Said to prevent convulsions in asthma and epilepsy.

Distinctive character—Leaves ovate-lanceolate, crenate, with pinnatifid stipules. Flowers violet-like, white, the corolla shorter than the spurred calyx. Fruit of three carpels. Taste, insipid. Odour, herbaceous.

HEDGE-HYSSOP.*Gratiola officinalis*, Linn.Fam. *Scrophulariaceæ*.

Parts used—Root, herb.

Action—Diuretic, cathartic, emetic. In doses of 5–20 grains it has been recommended in chronic affections of the liver, jaundice and enlargement of spleen. It has also shown itself valuable in dropsical affections in doses of 15–30 grains. Large doses induce vomiting and purging. The infusion of $\frac{1}{2}$ ounce of powdered root in 1 pint of boiling water is given in tablespoonful doses.



HAWTHORN

(See page 164)



HEARTSEASE

(See page 164)



HEMLOCK

(See page 165)



HEMP AGRIMONY

(See page 169)

Distinctive character—Stem quadrangular, not hairy. Leaves opposite, not stalked, lanceolate, about $1\frac{1}{4}$ inch long and $\frac{1}{2}$ inch broad, with three to five longitudinal veins, and toothed at the margin above the middle. Flowers irregular, singly in the upper axils, pinkish, with five stamens of which only two are fertile. Taste, acrid and bitter. Odour, none.

The rhizome is cylindrical, brownish yellow, about $\frac{1}{4}$ inch in diameter, with joints $\frac{1}{8}$ – $\frac{1}{2}$ inch long, having ovate scales on the joints, with slender rootlets below. The transverse section shows a porous white bark and a small, dense, yellowish, woody ring, enclosing a comparatively large pith. Taste, very bitter. Odour, none.

HEDGE MUSTARD. *Sisymbrium officinale.*
Fam. *Cruciferae*.

Action—A remedy for hoarseness and weak lungs.
Dose : $\frac{1}{2}$ –1 drachm.

Description—Small yellow petals form a Maltese cross. Grows 1–2 feet high with great number of very thin spreading flower stems. Seed pods upright, close to the stem, which split open from the bottom upwards, only adhering at the top.

HELLEBORE, AMERICAN. *Veratrum viride*, Ait.
Fam. *Liliaceae*.

Syn.—Swamp Hellebore, Green Hellebore, Itchweed, Indian Poke. American Veratrum.

Parts used—Rhizome, root.

Action—Cardiac depressant. A useful remedy in febrile and inflammatory affections of respiratory organs, and used as a gargle in sore throat. For acute tonsillitis it is an excellent remedy. It relieves irritation of the nervous system, and is of especial value in convulsions, mania, neuralgia, and headache. **POISON.**

Preparations—Powdered root: Dose, 1-2 grains. Fluid extract: Dose, 1-2 minims. Tinct. Verat. B.P.C.: Dose, 5-30 minims.

Distinctive character—The rootstock is blackish grey, obconical, 2-3 inches long and $\frac{3}{4}$ -1 $\frac{1}{2}$ inch in diameter, tufted above with the scaly remains of stem leaves, internally whitish, with darker wavy lines and dots in the central portion, with numerous yellowish brown shrivelled rootlets, about 8 inches long and $\frac{1}{2}$ inch thick. The rhizome closely resembles that of White Hellebore (*V. album*) and is considered by many to be of the same species. In commerce Green Hellebore is generally cut longitudinally. White Hellebore is usually entire and sometimes deprived of its roots. Usually employed in certain skin diseases as an external application and for the destruction of Pediculi. White Hellebore grows in the mountains of Central Europe. Taste, bitter and very acrid. Odourless, but the powder very irritating to the nostrils.

HELLEBORE, BLACK. *Helleborus niger*, Linn.

Fam. *Ranunculaceæ*.

Syn.—Christmas Rose

Parts used—Rhizome, root.

Action—Diuretic, cathartic, emmenagogue. Has been used in dropsy, chlorosis and amenorrhœa. In nervous disorders, hysteria, and melancholia it is of value. Should be given in minute doses only, as larger ones cause untoward effects.

Preparations—Fluid extract. Dose, 2-10 minims. Solid extract. Dose, 1-2 grains.

Distinctive character—Rhizome blackish, mostly forming an entangled mass of very short branches, and straight, rather brittle, black rootlets $\frac{1}{2}$ inch in diameter, which exhibit a central slightly angular cord. Transverse section of the rhizome shows a thick bark and a ring of whitish woody wedges. Taste, bitter and slightly acrid. Odour, slight, fatty.

HELLEBORE, FALSE.*Adonis vernalis*, Linn.Fam. *Ranunculaceæ*.Syn.—*Adonis*, Pheasant's Eye.

Part used—Herb.

Action—Cardiac, tonic, diuretic. Is not cumulative in its action, but should be used with caution. Highly spoken of in heart diseases and kidney affections. Valuable in cardiac dropsy and heart strain. The dose of an infusion of $\frac{1}{4}$ ounce in 1 pint of boiling water is a tablespoonful every two to three hours.

Preparations—Fluid extract: Dose, 1-2 minims. Glucoside, Adonidin: Dose, $\frac{1}{12}$ – $\frac{1}{4}$ grain.

Distinctive character—Stem about 6-9 inches long, alternate, terminated by a single large yellow flower about $1\frac{1}{2}$ inch across, followed by an oval head of achenes about 1 inch long. Leaves alternate, finely divided in a pinnate manner into linear segments, sheathing at the base, the whole plant not hairy. Taste, slight. Odour, none.

HEMLOCK.*Conium maculatum*, Linn.Fam. *Umbelliferae*.

Syn.—Poison Hemlock, Poison Parsley, Conium, Spotted Hemlock.

Parts used—Leaves, Seeds. Gathered when unripe.

Action—Sedative, anodyne. Is of particular service in all spasmodic affections, such as chorea, epilepsy, acute mania, &c. Also used with advantage in whooping cough. Should be administered with care, as overdoses produce paralysis.

Preparations—From leaves: Powdered leaves: Dose, 2-8 grains. Ext. Conii B.P.C.: Dose, 2-6 grains. Succ. Conii B.P.C.: Dose, $\frac{1}{2}$ –1 drachm. Ung. Conii B.P.C.: Liquid extract: Dose, 5-10 minims. From seeds: Liquid extract: Dose, 2-5 minims. Tincture: Dose $\frac{1}{2}$ –1 drachm.

Distinctive character—Leaves hairless, repeatedly pinnate, a foot long or more, angular in outline, the stem hollow, spotted, as well as the large leafstalks, with purplish spots; the tips of the leaflets end in a white point. Taste, unpleasant. Odour, disagreeable, mousey when the leaves are rubbed with Liquor Potassæ. The fruits are ovate, plano-convex, indented on the flat surface, with five crenate ridges on the back. Odour, none, unless rubbed with alkali, then mousey like the leaves.

HEMP AGRIMONY.

Eupatorium cannabinum, Linn

Fam. *Compositæ*.

Part used—Herb.

Action—Antiscorbutic, cathartic, diuretic. A good remedy for impurity of the blood. May be used by itself or combined with other herbs. The infusion of 1 ounce to 1 pint of water is taken in wineglassful doses four or five times a day.

Preparation—Fluid extract. Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stem angular, striated, rough. Leaves opposite, downy, three to five lobed, the segments elongate-lanceolate, irregularly serrate, the central one longest. Flower heads slender, five to six flowered, florets all tubular, pinkish. Receptacle not hairy, pappus pilose. Taste, sweetish, then bitter. Odour, faintly aromatic.

HENBANE.

Hyoscyamus niger, Linn.

Fam. *Solanacæ*.

Syn.—Hogbean.

Parts used—Leaves and flowering tops.

Action—Anodyne, narcotic, mydriatic. Principally employed in irritable conditions and nervous affections. Also used in asthma, whooping cough, &c, as a sedative and as a substitute for Opium, where this is inadmissible, as in children's complaints.

Preparations—Powdered drug: Dose, 3-6 grains. Ext. Hyoscy. Liq. B.P.: Dose, 3-6 minims. Ext. Hyoscy. Sicc. B.P.: Dose, $\frac{1}{4}$ -1 grain. Pil. Colocynth et Hyoscy. B.P.: Dose, 4-8 grains. Succ. Hyoscy. B.P.C.: Dose, $\frac{1}{4}$ -1 drachm. Tinct. Hyoscy. B.P.: Dose, $\frac{1}{4}$ -1 drachm.

Distinctive character—During the first year the plant produces a rosette of large leaves known as First Biennial. The second year the plant grows to a height of 3 feet or more with stout branching stem clusters of yellow flowers veined with purple. This is called Second Biennial. From this the green extract of Henbane and Succus is obtained. The official drug, according to the B.P. 1932, consists of the dried leaves and flowering tops. Annual Henbane is a smaller plant than the Biennial. The stem does not branch, the flowers are paler and the leaves are smaller and less hairy. The entire plant is generally collected and, therefore, contains stalk, leaf, and flowers. This forms the bulk of Imported Henbane. Taste, slightly acrid. Odour, unpleasant, characteristic.

HENNA.

Lawsonia alba, Lamk.

Fam. *Lythraceæ*.

Syn.—Henne, Alhenna.

Part used—Leaves. Grown in Egypt, India, and Persia.

Action—Astringent. The Indian natives ascribe wonderful properties to this plant, and use it in headache, smallpox, leprosy, &c. Its greatest use is as a dye for the nails of the hands and feet, and in Europe for the hair.

Distinctive character—Leaves opposite, shortly stalked, smooth, lanceolate, mucronate, entire at the revolute margins, about 1 inch long, $1\frac{1}{2}$ inch wide, lateral veins incurved at their apex. Taste, slightly astringent. Odour, tea-like.



HENBANE

(See page 169)



HOLLY

(See page 172)



HONEYSUCKLE

(See page 173)



HOPS

(See page 174)

A section of the leaf shows a double row of palisade cells and numerous cluster crystals of Calcium Oxalate. It is often imported in a coarse powder, which is charged with earth and other impurities.

HOLLY.*Ilex Aquifolium*, Linn.Fam. *Aquifoliaceæ*.

Syn.—Holm, Hulm, Hulver Bush.

Parts used—Leaves, berries.

Action—Febrifuge, cathartic. The leaves have been used in fevers and rheumatism, the berries in dropsy.

Distinctive character—The leaves are about 2 inches long and $1\frac{1}{2}$ inch broad, oblong-ovate, shiny, leathery, with a spiny margin, but some leaves are almost free from spines. Taste and odour, none.

HOLLYHOCK.*Althæa rosea*, Linn.Fam. *Malvaceæ*.

Syn.—Common Hollyhock, Garden Hollyhock.

Part used—Flowers.

Action—Emollient, demulcent, diuretic. Useful in chest complaints; its action is similar to Marsh-mallow. The dark violet flowered variety is also used for colouring purposes.

Distinctive character—The dried flowers are deep purplish black about $2\frac{1}{2}$ inches in diameter, united with the stamens, which form a tube, the one-celled reniform anthers remaining free. The corolla, freed from the calyx, is usually sold.

HOLY THISTLE.*Carbenla benedicta*, Berul.Fam. *Compositæ*.

Syn.—*Cnicus benedictus*, Gaertn.; Blessed Thistle, *Carduus benedictus*, Steud. Melancholy Thistle is *Carduus Heteroph.*

Part used—Herb.

Action—Tonic, diaphoretic, emmenagogue. In dyspepsia, intermittent fevers, and loss of appetite it is found very useful. The warm infusion—1 ounce to 1 pint of boiling water—in doses of a wineglassful will be found of value in breaking up colds; it acts also well in menstrual derangements due to colds, &c.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Leaves greyish green, thin and brittle, with prominent pale veinlets, clasping the stem, the margins irregularly toothed, each tooth ending in a spine. Flowerheads about 1 inch long and $1\frac{1}{2}$ inch broad. Fruits cylindrical, $\frac{1}{2}$ inch long, finely ribbed longitudinally with an outer long and inner short row of stiff bristles within the toothed crown of the fruit. Involucral scales ovate, terminating in a long bristle. Taste, very bitter. Odour, none.

HONEYSUCKLE. *Lonicera Caprifollum*, Linn.

Fam. *Caprifoliaceæ*.

Syn.—Dutch Honeysuckle.

Parts used—Flowers, leaves.

Action—Expectorant, laxative. The flowers, in the form of a syrup, have been used successfully in disorders of the respiratory organs and in asthma. A decoction of the leaves acts as a laxative and has been used with benefit in diseases of liver and spleen.

Distinctive character—The dried flowers are yellowish brown, mostly tubular flower-buds mixed with the stalked heads about $\frac{1}{2}$ inch in diameter of minute young fruits, from which the flowers have fallen. Leaves rather thin, $1\frac{1}{2}$ –2 inches long and 1– $1\frac{1}{2}$ inch broad, oval obtuse, shortly stalked, opposite, smooth, the upper leaves united at the base, and with entire margins paler below. Taste, sweet, mucilaginous. Odour, imperceptible.

Also a candy is prepared, and if properly made, is no doubt efficacious. An infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses, frequently.

Preparations—Inf. Marrub. Conc. B.P.C. : Dose, $\frac{1}{4}$ –1 drachm. Syr. Marrub. B.P.C. : Dose, $\frac{1}{4}$ –1 drachm. Liquid extract : Dose, $\frac{1}{2}$ –1 drachm. Solid extract : Dose, 5–15 grains. Powdered Herb : Dose, $\frac{1}{4}$ – $\frac{1}{2}$ drachm.

Distinctive character—Stem and leaves coated with soft woolly hairs. Leaves cordate-ovate, shortly stalked, and crenate at the margins, reticulated on both sides. Flowers small, white, with axillary clusters. Calyx with ten veins and ten teeth ending in rigid hooked points. Taste, bitter, aromatic. Odour, characteristic.

HOREHOUND, BLACK. *Ballota nigra*, Linn.

Fam. Labiatae.

Syn.—*Marrubium nigrum*, Crantz.

Part used—Herb.

Action—Stimulant, antispasmodic, vermifuge. Recommended in suppressed and excessive menstruation.

Distinctive character—Lower leaves cordate, upper leaves ovate, crenate, serrate, hairy. Flowers usually purplish, labiate. Calyx with five spreading broadly ovate teeth. Taste, unpleasant. Odour, disagreeable.

HORSE CHESTNUT. *Aesculus Hippocastanum*.

Fam. Sapindaceae.

Syn.—*Hippocastanum vulgare*, Gaertn.

Parts used—Bark, fruit.

Action—Tonic, narcotic, febrifuge. The bark is used in intermittent fevers infused with boiling water—1 ounce to 1 pint—and given in tablespoonful doses three to four times daily ; this has also been used as an external application to ulcers. The fruits have been employed with success in treatment of rheumatic and neuralgic disorders ; also for rectal complaints, back-

ache, piles, &c. Tincture of seeds 1 in 10 of proof spirit. Used for painful hæmorrhoids. Dose, 10 drops night and morning.

Preparations—Fluid extract, fruit: Dose, 5-20 drops. Fluid extract, bark: Dose, $\frac{1}{2}$ -2 drachms.

Distinctive character—The bark occurs in flattened pieces 4-5 inches long, and about 1-1 $\frac{1}{2}$ inch broad, and about 1-1 $\frac{1}{2}$ inch thick, greyish brown externally, with corky warts tangentially elongated; on the inner surface, pinkish brown, and finally striated longitudinally. Fracture finely fibrous and laminate towards the inner surface. Taste, bitter and astringent. Odour, none. The fruit is a capsule, splitting into three valves, with short spines scattered on the surface, each containing a large brown polished seed, about 1 inch broad and $\frac{1}{2}$ inch thick, with a large dull, rough, and pale brown scar where it has been attached to the capsule. Seed white, giving a blue fluorescent infusion.

HORSEMINT.

Monarda punctata, Linn.

Fam. *Labiata*.

Syn.—American Horsemint.

Parts used—Leaves, tops.

Action—Stimulant, carminative, diuretic. Like all the Mint family this drug may be serviceable as a stimulating diaphoretic in flatulence, nausea and vomiting. The warm infusion is a pleasant diuretic and it has also a reputation as an emmenagogue. The dose is a wineglassful several times daily.

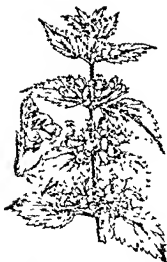
Preparation—Oil (*Oleum Monardæ*) U.S.P. 1870: Dose, 2-10 drops.

Distinctive character—Leaves opposite, stalked, lanceolate, about 2 inches long, toothed, nearly smooth, flowers in axillary tufts, with sessile yellow and purple bracts, and a tubular five-toothed downy calyx. Corolla two-lipped yellow, with purple spots and two stamens. Taste, pungent, bitterish. Odour, recalling that of Thyme.



HOREHOUND

(See page 174)



HOREHOUND, BLACK

(See page 175)



HORSEMINT, English

(See page 171)



HORSERADISH

(See page 175)

HORSEMINT, ENGLISH.*Mentha sylvestris*, Linn.Fam. *Labiatae*.

Part used—Herb.

Action—Carminative, stimulant.

Distinctive character—Leaves opposite, nearly sessile, ovate lanceolate, serrate, silky beneath, flowers labiate, arranged in axillary clusters crowded into linear spikes, bracts subulate. Taste and odour resembling that of garden mint (*Mentha viridis*, L.).

HORSENETTLE.*Solanum Carolinense*, Linn.Fam. *Solanaceae*.

Syn.—Bullnettle, Sandbrier, Treadsoft, Treadsaf.

Parts used—Berries, root.

Action—Antispasmodic, sedative. This plant has lately come into prominence as a remedy in infantile and hysterical convulsions, but chiefly in epilepsy and paroxysms connected with menstrual derangements. The dose of the berries has been given as 5-60 grains, and of the root from 10 grains to 2 drachms.

Distinctive character—Root cylindrical, smooth, with a few slender rootlets, in pieces of 4-6 inches long, with a thin pale brown bark easily abraded, showing white beneath, fracture tough, woody, with a radiate structure, with a few fine silky fibres projecting from the bark. Taste, bitter, then sweetish. Odour, none. Fresh Horsenettle Berries are imported in spirit from the U.S.A.

HORSERADISH.*Cochlearia Armoracia*, Linn.Fam. *Cruciferae*.

Part used—Root.

Action—Stimulant, diaphoretic, diuretic. An excellent stimulant to the digestive organs, and useful in the treatment of dropsy. A good condiment is made by steeping the scraped root in vinegar. Dr. Coffin

recommends for dropsy an infusion prepared by pouring 1 pint of boiling water on 1 ounce of Horseradish and $\frac{1}{2}$ ounce of Mustard Seed (crushed). The dose is 2-3 tablespoonfuls three times a day.

Preparations—Sp. Armor. Co. B.P.C.: Dose, 1-2 drachms. Liquid extract: Dose, $\frac{1}{2}$ -1 drachm.

Distinctive character—Root white, cylindrical, about 1 foot long and about $\frac{3}{4}$ inch in diameter; usually sold fresh. Taste, pungent, mustard-like. Odour, when the root is scraped, recalling that of mustard, and irritating to the nostrils.

HORSETAIL.

Equisetum arvense, Linn.

Fam. *Equisetaceæ*.

Syn.—Shavegrass, Bottlebrush, Pewterwort.

Part used—Herb.

Action—Diuretic, astringent. It has been found beneficial in dropsy, gravel, and kidney affections. Also used in gonorrhœa and gleet with advantage. In urinary incontinence, the effect of cystic irritation, it is a very serviceable remedy. The ashes of this plant are very valuable in acidity of the stomach, dyspepsia, &c., taken in doses of 3-10 grains.

Preparation—Fluid extract · Dose, $\frac{1}{2}$ -1 drachm.

Distinctive character—Stems branched, jointed, brittle, many angled 6-19 without leaves but with sheaths at the joints, the teeth of which are long and acute and one ribbed at the top, the branches with rough sharp angles. Taste and odour, none. Joints about 1 inch long and $\frac{1}{8}$ - $\frac{1}{4}$ inch in diameter.

The plant has no flowers, but produces spores on the fertile stem, which withers when the spores have ripened and is succeeded by a barren stem. The short branches hug the fertile stem, but radiate like the spokes of a wheel spreading outward and upward in the barren stem. These humble *Equiseta* were represented during the Coal Period by trees from twenty to thirty feet high and 4-6 inches in diameter.

HOUNDSTONGUE. *Cynoglossum officinale*, Linn.

Fam. *Boraginaceæ*.

Syn.—Dogstongue.

Part used—Herb.

Action—Anodyne, demulcent, astringent. Has been employed in coughs, colds, catarrhs, diarrhœa, and dysentery. Is very soothing to the digestive organs and relieves piles. Often used externally and internally at the same time.

Distinctive character—Flowers dull red, funnel-shaped, five divisions. Several flowers, each on a small stalk, grow all one side of the flower stalk. Stem 1-2 feet, rough haired. Leaves long lance shaped, grow alternately, lower leaves stalked, sometimes a foot long.

HOUSELEEK. *Sempervivum tectorum*, Linn.

Fam. *Crassulaceæ*.

Syn.—Common Houseleek, Sengreen, Joubarbe des toits (Fr.).

Part used—Fresh leaves.

Action—Refrigerant, astringent. The fresh leaves are bruised and applied as a poultice in inflammatory conditions of the skin such as burns, stings, &c. It is positively said to cure warts and corns.

Distinctive character—Leaves forming rosettes 2-3 inches in diameter, fleshy, flat, sessile, oblong-obovate, incurved, and pointed, hairy on the margin. Taste, saline, astringent and acid. Odour, none.

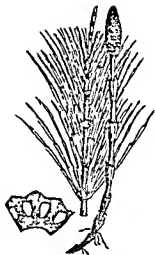
HYDRANGEA. *Hydrangea arborescens*, Linn.

Fam. *Saxifragaceæ*.

Syn.—Wild Hydrangea, Seven Barks.

Part used—Root.

Action—Cathartic, diuretic, nephritic. A valuable remedy for the removal of stone and gravel in bladder.



HORSETAIL

(See page 179)



HOUNDSTONGUE

(See page 180)



HOUSELEEK

(See page 180)



IVY

(See page 187)

Its greatest value is due to its power of preventing any gravelly deposits. The infusion of 1 ounce of root in 1 pint of boiling water may be taken in wineglassful doses, hot, if desired.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –2 drachms.

Distinctive character—Root pale fawn-coloured, smooth with gradually tapering branches, hard and woody, bark very thin, the wood porous and radiate in structure, in the larger pieces, of apparently underground branches, there is a distinct white pith. Taste of the bark, slightly sweetish and pungent. Odour, none.

HYDROCOTYLE. *Hydrocotyle Asiatica*, Linn.

A small umbelliferous plant found in India and other tropical countries. It is claimed that *Hydrocotyle* possesses marked diuretic qualities. Has been given in fevers, bowel complaints, and for syphilitic and scrofulous conditions.

HYSSOP. *Hyssopus officinalis*, Linn.

Fam. *Labiatae*.

Part used—Herb.

Action—Stimulant, carminative, pectoral. This forms an agreeable remedy in cases of colds, coughs, consumption, and lung complaints. It is generally compounded with other remedies. The dose of the infusion, made from 1 ounce of herb in 1 pint of boiling water, is a wineglassful, taken frequently.

Preparation—Fluid extract . Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stem woody, leaves linear-lanceolate, nearly sessile, about $\frac{1}{2}$ inch long and $\frac{1}{8}$ inch broad, hairy on the margin. Flowers blue in axillary tufts arranged on one side. Calyx of five unequal teeth. Stamens, four. Taste, bitter. Odour, aromatic and camphoraceous.

ICELAND MOSS.*Cetraria islandica*, Ach.Fam. *Parmeliaceæ*.Syn.—Iceland Lichen, *Cetraria*.

Part used—Lichen. Collected in Sweden, growing amidst moss and grass.

Action—Demulcent, tonic, nutritive. Ordinary doses improve the appetite and digestion, and do not produce constipation, but excessive doses may induce looseness of bowels. Highly recommended in chronic catarrh, chronic bronchitis, and consumption, as it relieves the cough and assists the system by its nutritive properties. The decoction is generally made of the strength of 1 ounce to 1 pint, and the moss should be well washed before it is used.

Preparation—Decoction B.P. 1885 : Dose, 1-4 ounces.

Distinctive character—Thallus smooth, grey or light olive brown, foliaceous, branching, about 2-4 inches high, curled, channelled or rolled into tubes, terminating in spreading flattened lobes with the edges fringed with small papillæ. The under surface is paler with depressed minute white spots. Taste, bitter. Inodorous, but when wetted its odour recalls that of seaweed.

IGNATIUS BEANS.*Strychnos Ignatii*, Berg.Fam. *Loganiaceæ*.Syn.—Saint Ignatius Beans, *Ignatia amara*, Linn. f.

Part used—Seeds. Grown in the Philippines.

Action—Stimulant, tonic. Its properties are similar to *Nux Vomica*, possibly more active, and it is used in functional nervous disorders, neuralgia, and debility, &c. It also contains Brucine and Strychnine, poisonous alkaloids, to about the same extent as *Nux Vomica*.

Preparations—Powdered seeds : Dose, $\frac{1}{2}$ -2 grains.
Tinct. Ignat. B.P.C. : Dose, 5-20 minims.

Distinctive character—Seeds ovoid, irregularly angular, about 1 inch long and $1\frac{1}{2}$ inch in diameter, with a definite hilum at one end. Externally dull grey, granular, with occasionally fragments of brown epidermis still adhering to the surface. Internally hard, horny. Taste, intensely bitter. Odour, none.

INDIAN HEMP.

Cannabis sativa, Linn.

Fam. *Cannabinaceæ*.

Syn.—*Cannabis Indica*, Lamk., Guaza, Ganjah, Bhang, Dagga. Cultivated in India.

Part used—Tops.

Action—Anodyne, hypnotic, antispasmodic. Is principally used to allay spasmodic pains of nervous origin where there is a marked nervous depression. It produces sleep without derangement of the digestive organs, and is therefore more suitable, in many cases, than Opium. Used for smoking by the Arabs and other Eastern tribes.

Preparations—Ext. Cannab. B.P.C.: Dose, $\frac{1}{4}$ –1 grain. Tinct. Cannab. B.P.C.: Dose, 5–15 minims. Liquid extract: Dose, 1–3 minims.

Distinctive character—The herb is usually sold in the form of the dried tops of the female flowering plant, and may be recognised by the presence of hemp seeds, of which there are usually some present in a more or less immature state. The leaves are long-stalked, bearing usually five to seven lanceolate-acuminate leaflets, sharply serrate at the margin, arranged in a radiate manner; they are brittle, and usually more or less adherent, due to the exudation of resin. Taste, very slight. Odour, somewhat smoky, but characteristic.

The name Haschisch has been given to the plant, and also to an electuary made by digesting the herb in butter, which produces a form of intoxication. The plant is also cultivated in Zanzibar, and also in the United States under Government supervision. They are about half the strength of the Indian Guaza.

INDIAN PHYSIC.

Gillenia trifoliata, Moench.*G. stipulacea*, Pursh.Fam. *Rosaceæ*.

Syn.—*Spiraea trifoliata*, Linn.; and *S. stipulata*, Muhl., Indian Hippo, *Gillenia*.

Part used—Rootbark.

Action—Expectorant, cathartic, emetic. The American Indians use the above-mentioned plants in the same way as *Ipecacuanha*. They recommend it in dyspepsia, dropsy, habitual constipation, coughs, colds, with se of rains mesis and catharsis. The smaller doses may be repeated every three to four hours.

Distinctive character—The roots of both species are collected and sold under the name of Indian Physic. The roots are cylindrical, sometimes undulated, usually more long, varying have a blackish hue tion shows a thick e, separating easily from the white woody centre. The bark is pleasantly bitter, the wood tasteless Odour, none.

IPECACUANHA.

Cephaëlis Ipecacuanha (Brot.), A. Rich.Fam. *Rubiaceæ*.

Syn.—*Psychotria Ipecacuanha*, Stokes, *Ipecac*.

Part used—Root. Grown in Brazil and Johore.

Action—Diaphoretic, emetic, expectorant. Small doses act effectually as an expectorant, and may be given for coughs, colds, dysentery, and to produce perspiration. Full doses produce free emesis. An infusion of 1 ounce to 1 pint of boiling water may be taken in teaspoonful to wineglassful doses as above directed. Mostly combined with other remedies.

Preparations—Acet. Ipecac. B.P.C. : Dose, 10-30 minims. Elix. Ipecac. B.P.C. : Dose, 10-30 minims. Ext. Ipecac. Liq. B.P. : Dose, $\frac{1}{2}$ -2 minims (emetic dose, 10-30 minims). Ipecac. pulverata B.P. : Dose, $\frac{1}{2}$ -2 grains (emetic dose, 15-30 grains). Linct. Diamorph. c Ipecac. B.P.C. : Dose, $\frac{1}{2}$ -1 drachm. Mist. Ipecac. Co. B.P.C. : Dose, $\frac{1}{2}$ -1 fluid ounce. Syr. Ipecac. B.P.C. : Dose, $\frac{1}{2}$ -2 drachms. Tinct. Ipecac. B.P. : Dose, 10-30 minims (emetic dose, $\frac{1}{2}$ -1 fluid ounce). Ipecacuanha also enters into the composition of many pills, tablets, and lozenges.

Distinctive character—Rio Ipecac., or Matto Grasso, is slender, rather tortuous, and is most esteemed. It has the appearance of a number of disks or beads strung together. Johore Ipecac. closely resembles the Matto Grasso variety, but is generally bolder and brighter in colour.

Minas Ipecac., grown in the province of Minas Geraes, is a variety of Matto Grasso. The root is often shaped like the sea-horse.

Cartagena Ipecac., imported from Columbia, is distinguished from Rio by being larger, and the annulations are narrow raised ridges. The root appears entire instead of the disk formation of the Rio. Cartagena Ipecac. contains the same amount of total alkaloids, Emetine and Cephaeline, as the other varieties, but in different proportions. Rio contains twice as much Emetine as Cephaeline ; Cartagena about twice as much Cephaeline as Emetine. The Cartagena Root is more emetic and less expectorant than Rio Ipecac. Deprived of its alkaloids, is used as a remedy for dysentery.

Dose of the de-emetinised Ipecacuanha, 30-60 grains.

IRISH MOSS.

Chondrus crispus, Stackh.

Fam. *Gigartinales*.

Syn.—Chondrus, Carragheen, Carrageen, Caragahen.

Part used—Plant or seaweed.

Action—Demulcent, pectoral, nutritious. Used in

chronic coughs, bronchitis, pneumonia, &c. Also in irritating diseases of the bladder and kidneys, and as a culinary article. The decoction is made as follows: Steep $\frac{1}{2}$ ounce of Irish Moss in cold water for 10 minutes, then boil in 3 pints of water or milk for a quarter of an hour, strain through linen, and season with liquorice, sugar, lemon juice, cinnamon, nutmeg, or other flavours to taste.

Distinctive character—This dried seaweed, erroneously called moss, has a flat forked frond varying in width from $\frac{1}{4}$ – $\frac{1}{2}$ inch and about $\frac{1}{16}$ – $\frac{1}{8}$ inch thick. It varies in length from 2 $\frac{1}{2}$ –5 inches, and has a fan-shaped outline. The fronds of *Gigartina mammillosa*, J. Ag., which have a similar shape, are usually incurved at the margins of the stem, and have papillæ on the ultimate segments, but possess similar properties. Taste, mucilaginous and saline. Odour, that of seaweed.

The seaweed is bleached by exposure to the sun and repeated washing. The cheaper qualities are used for cattle food, also for dressing cotton cloth.

IVY.

Hedera Helix, Linn.

Syn.—Common Ivy.

Fam *Araliaceæ*.

Parts used—Leaves, berries.

Action—Stimulating, diaphoretic, cathartic. Externally the leaves have been employed as poultices or fomentations in glandular enlargements, indolent ulcers, abscesses, &c. The berries are found of use in febrile disorders, and a vinegar of these was extensively used during the London plague.

Distinctive character—Leaves dark green, paler beneath, leathery, shining long stalked about 2–4 inches wide, and long, radiate-veined with three to four triangular lobes, the upper leaves ovate or oval-lanceolate. The berries are about the size of a pea, purplish black, with a disk at the apex corresponding to the calyx-tube. Seeds, two or three ruminate. Taste, bitter and nauseous. Odour, when rubbed, aromatic and slightly resinous.

IVY, AMERICAN.

Vitis hederacea, Willd.Fam. *Vitaceæ*.

Syn.—*Ampelopsis quinquefolia*, Mich., *Cissus hederacea*, Ross, *Cissus quinquefolia*, Desf., Virginian Creeper, *Vitis quinquefolia*, Lam., Woodvine.

Parts used—Bark, twigs.

Action—Tonic, expectorant, astringent. This drug is principally used in scrofulous and syphilitic affections, in the form of a syrup. In dropsy, bronchitis, and in pulmonary complaints it may be recommended. The decoction of 1 ounce in 1 pint of boiling water is taken in wineglassful doses.

Preparations—Fluid extract: Dose, $\frac{1}{2}$ –1 drachm. Ampelopsin: Dose, 2–4 grains.

Distinctive character—The bark occurs in quilled pieces 2–3 inches long and from $\frac{1}{4}$ – $\frac{1}{2}$ inch in diameter, externally brown, with enlarged transverse scars formed from lenticels. The fracture shows a white bark with coarse flattened fibres in the inner portion. Taste, insipid. Odour, faintly aromatic. The leaves are stalked, digitate, with five oblong lanceolate leaflets.

JABORANDI.

Pilocarpus Microphyllus, Stapf.Fam. *Rutaceæ*.

Part used—Leaves.

Action—Stimulant, diaphoretic, expectorant. Specially useful in asthma and diabetes. A teaspoonful of powdered leaves infused in a cupful of boiling water and taken as a dose will cause free perspiration and salivation. Generally the infusion of 1 ounce of leaves in 1 pint of boiling water is taken in wineglassful doses or less as required.

Preparations—Ext. Jaborand. Liq. B.P.C. Tinct. Jaborand. B.P.C.: Dose, 10–30 minims. Pilocarpine Hydrochlor. B.P.C.: Dose, $\frac{1}{10}$ – $\frac{1}{8}$ grain. Pilocarpine Nitrate B.P.C.: Dose, $\frac{1}{10}$ – $\frac{1}{8}$ grain.

Distinctive character—The leaflets (five to one leaf) are usually detached, brownish green, oblong, slightly unequal at the base and emarginate at the apex, $1-1\frac{1}{2}$ inch long, and about $\frac{1}{2}-1$ inch broad, margin entire and slightly recurved, veins prominent on the upper surface; furnished with numerous translucent oil cells. Taste, pea-like. Odour, slight.

The leaves of the *Pilocarpus Jaborandi*, Holmes, are rarely imported now. They are larger than *P. Microphyllus*.

The official *Jaborandi* is now replaced in commerce by the leaves of *Pilocarpus microphyllus*, Stapf., which are dull green and much smaller, being only $\frac{1}{2}-1\frac{1}{2}$ inch long and $\frac{1}{3}-\frac{2}{3}$ inch broad, but otherwise similar in taste and character.

The leaves of *Pilocarpus pinnatifolius*, Lemaire, which have also appeared in commerce, are about the size of those of *P. Jaborandi*, Holmes, but they are greyish green, the veins are not prominent on the upper surface, and the leaves are only half as active.

JACOB'S LADDER.

Polemonium coeruleum, Linn.

Fam. *Polemoniaceæ*.

Syn.—Greek Valerian, English Greek Valerian.

Part used—Plant.

Action—Diaphoretic, astringent. For medicinal uses see Abscess Root.

Distinctive character—The leaves are 5-6 inches long, imparipinnate, with about 17 lanceolate leaflets about 1 inch long and $\frac{1}{2}$ inch broad, which are alternate except towards the apex of the leaf, and entire at the margins; the rachis is channelled above. Flowers rotate, blue, and five-parted. Taste, slightly bitter. Odour, none.

JALAP.*Ipomœa Purga*, Hayne.Fam. *Convolvulaceæ*.

Syn.—*Ipomea Jalapa*, Schiede and Deppe, *Convolvulus Jalapa*, Linn., *Exogonium Purga*, Benth., *Convolvulus Purga*, Wender.

Parts used—Root. From Vera Cruz, Mexico.

Action—Cathartic, purgative. Used in constipation, pain and colic in bowels, and general intestinal torpor. Is combined with other laxatives and with carminatives such as ginger, cloves, &c.

Preparations—Jalap puiverat. B.P.: Dose, 5–20 grains. Pulv. Jalap. Co. B.P.: Dose, 10–60 grains. Tinct. Jalap. B.P.C.: Dose, $\frac{1}{2}$ –1 drachm. Tinct. Jalap. Co. B.P.C.: Dose, $\frac{1}{2}$ –1 drachm. Jalap Resin: Dose, 1–5 grains. Jalapin: Dose, 1–5 grains.

Distinctive character—Root usually ovoid, varying greatly in size, but on the average $2\frac{1}{2}$ inches long by $1\frac{1}{2}$ inch in diameter, dark brown, wrinkled, with paler, small transverse marks, often more numerous at one end. The interior is dirty white, tough, hard, and sometimes horny, with a resinous non-fibrous fracture. Taste, unpleasant, followed by acidity. Odour, smoky due to the smoke over which the root has been dried. Good Jalap should contain 10 per cent. Resin.

JAMAICA DOGWOOD. *Piscidia Erythrina*, Linn.Fam. *Leguminosæ*.

Part used—Bark.

Action—Anodyne, sedative. Relieves toothache, eases bronchial and consumptive cough. Produces sleep and allays pain and nervous excitement. Unpleasant results have occurred by overdoses. Generally combined with Black Haw and other remedies in female complaints, &c.

Preparations—Ext. Piscid. Liq. B.P.C.: Dose, $\frac{1}{2}$ –2 drachms. Ext. Piscid. B.P.C. 1923: Dose, 1–5 grains.

Distinctive character—The bark occurs in quilled, curved pieces about 2-6 inches long and $\frac{1}{8}$ – $\frac{1}{4}$ inch thick, and is covered with a thin, smooth, greenish-grey or brownish-green patches. Taste, bitter and somewhat acrid. Odour, opium-like. Used in Jamaica as a fish poison.

JAMBUL.

Eugenia Jambolana, Lamk.

Fam. *Myrtaceæ*.

Syn.—Jamboo, Java-Plum, Jambool.

Part used—Seeds.

Action—Astringent, diuretic. This drug has been found very useful in diabetes, as it reduces the amount of sugar present in urine in a very brief space of time. Although not a specific in all cases of diabetes, it promises to be of the greatest value and should be tried whenever an occasion presents itself.

Van Noorden recommends large doses in cases of *diabetes mellitus*, and says $\frac{1}{2}$ ounce of the fluid extract in 8 ounces of hot water should be taken one hour before breakfast and last thing at night.

Preparations—Powdered seeds. Dose, 5-30 grains. May be administered in cachets or capsules. Fluid extract: Dose, 1-2 drachms

Distinctive character—The seeds as met with in commerce are muller-shaped, blackish brown, about $\frac{1}{4}$ inch long and rather less in diameter, one end truncated with a central depression, hard and tough externally, and internally pinkish brown, with glistening starch grains. Taste, faintly astringent and slightly aromatic. Odour, none.

JEQUIRITY.*Abrus precatorius*, Linn.Fam. *Leguminosæ*.

Syn.—Indian Liquorice, Wild Liquorice.

Part used—Seeds. Grown in East and West Indies.

Action—Irritant. It may be very cautiously used in eye diseases, and not until other means have been exhausted, as it produces a violent conjunctival inflammation and is likely to destroy the corneal structures.

Distinctive character—Seeds oval, rounded at the ends, about $\frac{1}{8}$ inch in diameter, hard and polished, vermilion red, with the upper third black; very hard and tough.

JEWEL WEED.*Impatiens aurea*, Muhl.,and *I. biflora*, Walt.Fam. *Geraniaceæ*.

Syn.—*I. aurea*, Muhl. = *I. pallida*, Nutt., Pale Touch-me-not, Balsam Weed. *I. biflora*, Walt. = *I. fulva*, Nutt., Spotted Touch-me-not, Speckled Jewels.

Part used—Herb.

Action—Aperient, diuretic. The fresh plants boiled with lard form an excellent application for piles. The juice is reputed to remove warts, corns, and cure ring-worm. In jaundice and dropsy the decoction has been found valuable in doses of a wineglassful repeated three to four times a day.

Distinctive character—Stems jointed, leaves grey-green, thin, ovate-oval, more or less toothed. Flowers axillary, solitary, slipper-shaped with a long recurved spur: in *I. pallida*, Nutt., pale yellow, and in *I. fulva*, Nutt., orange-yellow and spotted. Valves of the fruit curling up when dehiscent.

JOHN'S BREAD.

Ceratonla siliqua, Linn.

Fam. *Leguminosæ*.

Syn.—St. John's Bread.

Part used—Pods.

Action—Nutritive. Used as a food for man and beast, and by singers to improve the voice.

Distinctive character—The pods are 4–8 inches long and about 1 inch broad and $\frac{1}{8}$ or $\frac{1}{4}$ inch thick, compressed, dark brown, glossy, enclosing a light brown, soft, fleshy pulp having a sweet taste. Seeds flattish, ovate, in separate cells, lined with the papery endocarp. Odour, slightly valerianic.

JUJUBE BERRIES.

Zizyphus vulgaris, Lamk.

Fam. *Rhamnaceæ*.

Part used—Berries.

Action—Mucilaginous, pectoral. From these the genuine "Pâte de Jujubes" was formerly prepared for use in the manufacture of pectoral lozenges.

Distinctive character—Fruits variable in size in different varieties, from $\frac{1}{2}$ –1 inch long and $\frac{3}{8}$ – $\frac{1}{2}$ inch in diameter, red, smooth, and shiny, but brownish red and wrinkled when dried, fleshy and containing one or two endocarps. Taste, sweet and mucilaginous.

JUNIPER BERRIES. *Juniperus communis*, Linn.

Fam. *Pinaceæ*.

Part used—Berries.

Action—Diuretic, stimulant, carminative. As a rule these are given in conjunction with other remedies for kidney complaints. The oil extracted from berries and wood is also largely used. The infusion of 1 ounce of berries to 1 pint of boiling water is taken in wine-glassful doses.

Preparations—Fluid extract: Dose, $\frac{1}{2}$ –1 drachm. Oil of berries B.P.C.: Dose, $\frac{1}{2}$ –3 minims. Oil of wood: Dose, 1–5 minims. Spirit B.P.C.: Dose, 5–20 minims. Solid ext. alc.: Dose, 5–15 grains.

Distinctive character—Berry (fleshy galbulus) $\frac{3}{10}$ – $\frac{4}{10}$ inch in diameter, globular. Purplish black with a blue-grey bloom when recently collected, and a triangular line at the apex, indicating the junction of the three fleshy bracts forming the fruit, which contains three seeds. Taste, aromatic and turpentiney. Odour, turpentiney, but characteristic.

JURUBEBA.

Solanum insidiosum, Mart.

Fam. *Solanaceæ*.

Parts used—Root, fruit.

Action—Tonic, alterative, cathartic. Brazilians use it with success in liver and spleen disorders, also in anæmia and amenorrhœa. It is reputed as an excellent remedy in habitual constipation. The dose of the powdered root is from 5–30 grains.

KAMALA. *Mallotus Philippinensis*, Muell., Arg.

Fam. *Euphorbiaceæ*.

Syn.—*Rottlera tinctoria*, Roxb., Kameela, Spoon-wood.

Parts used—Capsule hairs and glands. Imported from India.

Action—Tæniifuge, purgative. Has long been used in India with success. The doses of powder vary from 2–3 drachms for adults, repeated if necessary. The worm is usually expelled entire. The fluid extract acts milder and with more certainty.

Preparations—Powdered Kamala: Dose, $\frac{1}{2}$ –2 drachms. Fluid extract: Dose, 2–4 drachms.

Distinctive character—The red glands covering the fruit, obtained by sifting the fruit, form a red mobile

powder, which floats in water. The grains, after treatment with alcohol or potash solution, to dissolve out the colouring matter, show a radiate structure. The powder often contains a quantity of sand, which can be removed by stirring the Kamala in water, when the latter floats, and can be separated. Tasteless and nearly odourless, but an alcoholic solution poured into water gives off a melon-like odour. The tree produces a three-celled capsular fruit the size of a pea covered with a red powder (Kamala), which is removed by shaking.

KAVA-KAVA.

Piper methysticum, Forst.Fam. *Piperaceæ*.

Syn.—Ava, Ava Pepper, Kava.

Part used—Root. Imported from the Sandwich Isles.

Action—Tonic, stimulant, diuretic. Has been employed in bronchitis, rheumatism, and gout, and is recommended in gonorrhœa and gleet, augmenting the discharges before a cure, which is effected in the short time of 10–12 days. Is also a remedy for nocturnal incontinence of urine, due to muscular weakness.

Preparations—Root. Dose, 1 drachm. Ext. Kavæ Liq. B.P.C.: Dose, $\frac{1}{2}$ –1 drachm. Solid extract alc.: Dose, 5–15 grains.

Distinctive character—Root large, and usually cut into segments 2 inches or more in diameter, externally blackish grey, internally whitish, fracture mealy and somewhat splintery, central portion porous, with irregularly twisted thin wood bundles separated by broad medullary rays, so that under the thick bark the wood bundles form distinct meshes. Rootlets, when not removed, often 12 inches long or more, and more or less fibrous. Taste, somewhat pungent and numbing. Odour, agreeable, lilac-like. The root contains about 10 per cent. of Resin, which, dissolved in Sandalwood Oil, is used for gonorrhœa. The root fermented forms an intoxicating drink.

KINO.*Pterocarpus Marsupium*, Roxb.Fam. *Leguminosæ*.

Syn.—Gum Kino.

Part used—Inspissated juice.

Action—Astringent. It is considered valuable in diarrhoea and dysentery. Used as an application in leucorrhœa, relaxed throat, &c.

Preparations—Pulv. Kino Co. B.P.C.: Dose, 5–20 grains. Powdered Gum: Dose, 5–20 grains. Tinct. Kino B.P.C.: Dose, $\frac{1}{2}$ –1 drachm. Tinct. U.S.P. XI (1 in 5): Dose, 30 minims (double B.P. strength).

Distinctive character—In small, blackish, shining fragments, or in coarse powder. Taste, very astringent. It adheres to the teeth when chewed. If properly prepared by boiling the juice as collected, it is entirely soluble when the powder is shaken up with cold water; the solution gives a violet colour with a protosalt of iron.

KNAPWEED.*Centaurea nigra*, Linn.Fam. *Compositæ*.

Syn.—Star Thistle, Black Ray Thistle, Hardhack, Ironweed.

Part used—Herb.

Action—Diuretic, diaphoretic, tonic. Said to equal Gentian as a tonic.

Distinctive character—Readily recognised by the globular flower heads, about 2 inches long and $1\frac{1}{2}$ inch broad, the outer scales of which have blackish appendages at the apex with comb-like teeth. Florets purplish, tubular. Fruit without pappus, but surrounded with bristles (paleæ). Taste, bitter, slightly saline. Odour, none.



JUNIPER BERRIES

(See page 193)



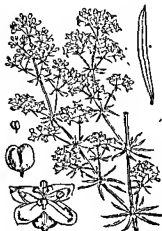
KNAPWEED

(See page 196)



KNOTGRASS, Russian

(See page 198)



LADIES' BEDSTRAW

(See page 201)

KNOTGRASS, RUSSIAN.*Polygonum erectum*, Linn.Fam. *Polygonaceæ*.**Part used**—Herb.

Action—Astringent. The infusion has been found highly beneficial in diarrhœa and children's summer complaints.

Distinctive character—Stem slender, cylindrical, striated. Leaves narrowly lanceolate, about $\frac{1}{2}$ inch long and $\frac{1}{8}$ – $\frac{1}{4}$ inch broad, sheathing stipules (*ochreæ*) lanceolate. Seed (nut) triangular, striated, with raised points. Taste, astringent. Odour, none..

English Knotgrass is *Polygonum aviculare*, Linn., and has similar properties to the Russian variety.

KOLA.*Cola vera*, Schum.(And other species.) Fam. *Sterculiaceæ*.

Syn.—*Sterculia acuminata*, Beauv., Kola Nut, Guru Nut, Cola.

Action—Nerve stimulant, diuretic, cardiac tonic. A good general tonic, depending largely for its influence upon the Caffeine it contains. Used by the African natives to enable them to perform arduous tasks without the aid of food. It is an excellent remedy for diarrhœa, and is also prescribed for the alcohol habit.

Preparations—Powdered Kola : Dose, 15–45 grains. Ext. Kolæ Liq. B.P.C. : Dose, 10–20 minims. Tinct. Kolæ B.P.C. : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The fleshy, dried cotyledons are the form in which the seed is met with in commerce. They are brown, often irregular in shape, usually oblong, convex on one side and flattened on the other, $1\frac{1}{2}$ –2 inches long, and about 1 inch in diameter. Taste, astringent, and somewhat earthy. Odour, very slight.

The Kola Tree is a native of Tropical Africa, also cultivated in the West Indies.

KOUSSO.

Brayera anthelmintica, Knuth.Fam. *Rosaceæ*.

Syn.—Kooso, Kusso, Kosso, Cossoo, Cusso.

Part used—Dried flowers.

Action — Purgative, tæniifuge, anthelmintic. Used successfully for tapeworms. The infusion of $\frac{1}{2}$ ounce in 1 pint of boiling water is taken in teacupful doses, quickly following each other, the powder being consumed with the liquor. Preparation by Castor Oil or other purgative is necessary, the Kouso to be taken on an empty stomach. A gentle cathartic after its operation is also advisable.

Preparation—Fluid extract : Dose, 2-4 drachms.

Distinctive character—The inflorescence is usually in the form of a cylindrical roll about 12 inches long and $2\frac{1}{2}$ inches in diameter, consisting usually of the female inflorescence. The flowers are nearly $\frac{1}{2}$ inch across, the ten sepals in two rows are veined and leaf-like, and the petals minute and linear. Stamens 11-25, but in the female flower the anthers are sterile.

KUMARHOU.

Pomaderris Elliptica.Fam. *Rhamnaceæ*.

Part used—Herb.

Action—It is regarded by the Maoris as a general cure-all and particularly for blood impurities. It is also said to give good results in cases of asthma, bronchitis, consumption, and rheumatism. Combined with Vinca Rosæ or alone, it is recommended for diabetes.

An infusion of $\frac{1}{2}$ ounce of the herb in 1 pint of water should be taken daily for at least six weeks in wineglassful doses ; children half the quantity.



Distinctive character—Rhizome about 1 inch long, surrounded with long, slender, deep-red roots. Leaves falcate, in a basal rosette $\frac{1}{2}$ – $\frac{3}{4}$ inch wide, sheathing at the base and, as well as the stems, reddish brown when dried, and reduced in size on the stem to small bracts. Flowers six, parted, with three stamens in a close woolly cyme. Taste, somewhat acid. Odour, none.

LADIES' BEDSTRAW.*Galium verum*, Linn.Fam. *Rubiaceæ*.

Syn.—Yellow Bedstraw, Maid's Hair, Cheese Rennet.

Part used—Herb.

Action—Diuretic, alterative. This is a popular remedy in gravel, stone, and urinary diseases, and has been used in hysterical complaints and epilepsy. The infusion is made with 1 ounce of herb in 1 pint of boiling water and taken in wineglassful doses several times a day.

Distinctive character—Stems slender, angular. Leaves linear, with revolute margins, downy beneath, about eight in a whorl. Flowers in terminal panicles, golden yellow. Taste, astringent, bitterish, and slightly acid. Odour, none.

LADIES' MANTLE.*Alchemilla vulgaris*, Linn.Fam. *Rosaceæ*.

Syn.—Lion's Foot.

Part used—Herb.

Action—Astringent, styptic. Used as a cure for excessive menstruation and flooding. Taken internally as an infusion of 1 ounce to 1 pint of boiling water in teacupful doses as required. Also employed as an injection.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Leaves rounded, about 2 inches in diameter, having nine obtuse, serrate lobes,

and slender stalks about 4 inches long, the whole plant furnished with soft silky hairs. Flowers green, in small clusters, borne on a forked stem which has small three-lobed leaves and broad stipules at the base of each fork. The flowers have no petals and only one to four stamens. Taste, slightly astringent. Inodorous.

LADIES' SLIPPER.

Cypripedium pubescens, Willd.

Fam. *Orchidaceæ*.

Syn.—*Cypripedium hirsutum*, Mill., American Valerian, Nerveroot, Noah's Ark, Yellow Ladies' Slipper.

Part used—Root.

Action—Antispasmodic, nervine, tonic. It allays pain, gives sleep, and is useful in headache, neuralgia, and female weaknesses. For this reason it is given in hysteria and most nervous disorders. Prescribed with tonic medicines its power is increased. The powder may be taken in sweetened water.

Preparations—Powdered root: Dose, 1 drachm. Fluid extract: Dose, $\frac{1}{2}$ –1 drachm. Cypripedin: Dose, 1–3 grains. Solid extract, alc.: Dose, 5–10 grains.

Distinctive character—Rhizome 2–4 inches long, and $\frac{1}{4}$ – $\frac{1}{2}$ inch thick, with numerous cup-shaped scars on the upper surface, and many unbranched, wavy, densely-matted roots below. Fracture, short, white. Odour, slightly valerianic. Taste, sweetish, acrid, bitter, and aromatic. The drug of commerce is derived from both *Cypripedium pubescens*, Willd., and *C. parviflorum*, Salisb.

LARCH.

Larix europæa, D.C.

Fam. *Pinaceæ*.

Syn.—*Pinus Larix*, Linn., European Larch.

Part used—Bark.

Action—Astringent, balsamic, diuretic. A strong

tincture has been used in chronic urinary inflammations, also in bronchitis to check secretions.

Preparation—Venice turpentine.

Distinctive character—The inner bark of the tree, deprived of its grey, inert, outer portion, is preferred for medicinal use. It occurs in flattish pieces, externally red-brown, with a rosy tint internally, the inner surface smooth, and pinkish brown or yellowish. Fracture short, slightly fibrous. Odour, terebinthinous. Taste, astringent, turpentiney, somewhat bitter.

LARKSPUR.

Delphinium Consolida, Linn.

Fam. *Ranunculaceæ*.

Syn.—Lark's Claw, Lark's Heel, Knight's Spur.

Part used—Seeds.

Action—A tincture of the seeds acts as a parasiticide and insecticide, and is used to destroy lice and nits in the hair. Used also in spasmodic asthma and dropsy, the tincture (1 ounce to 1 pint dilute alcohol) is given in 10-drop doses, gradually increased.

Distinctive character—Seeds black, tetrahedral, flattened, $\frac{1}{4}$ — $\frac{1}{8}$ inch in diameter, with acute edges and pitted surface. Albumen oily. Taste, bitter and acid. Inodorous.

LAUREL.

Laurus nobilis, Linn.

Fam. *Lauraceæ*.

Syn.—Bay, Sweet Bay, Noble Laurel, Roman Laurel.

Parts used—Leaves, fruit, oil.

Action—Stomachic The ancients valued Laurel greatly, but nowadays hardly any other preparation is used in medicine but the oil, as an application in rheumatism, &c.

Distinctive character—The leaves are leathery, dark green, rather paler beneath, about 3 inches long and 1 inch broad, elliptic-lanceolate, slightly broader

above the middle, entire, but wavy at the margins, the small whitish veins forming a network of nearly square minute meshes. Taste, aromatic. Odour, aromatic when bruised.

Bay Rum is distilled from the leaves of *Pimenta acris*. (West Indies.)

LAVENDER.

Lavandula officinalis, Chaix.

Fam. *Labiatae*.

Syn.—*Lavandula vera*, D.C.

Parts used—Flowers and oil.

Action—Stimulant, carminative. Seldom used in medicine. The infusion is made from 1 drachm of flowers to 1 pint of boiling water.

Preparations—Liquid extract. Dose, $\frac{1}{2}$ –1 drachm. Sp. Lavand B.P.C. Dose, 5–20 minims. Sp. Lavand. Co. B.P.C. Tinct. Lavand. Co. B.P.C. Dose, $\frac{1}{4}$ –1 drachm. Oil B.P.C. Dose, 1–3 minims.

Distinctive character—The flowers are usually met with in commerce separated from the flower spikes. The calyx is tubular, purplish grey, and five-toothed, with 13 veins, one tooth being larger than the others. The tubular corolla is two-lipped, the upper lip with two and the lower with three lobes. The whole of the flowers have a dense covering of stellate hairs, with minute shining oil glands, visible under a lens. Taste, pleasant. Odour, fragrant and characteristic.

Spike Lavender Oil is distilled from *Lavandula latifolia*, Vill., and other species growing in France and Spain. This is largely used for preventing insect bites.

LAVENDER COTTON.

Santolina Chamæcyparissias, Linn.

Fam. *Compositae*.

Part used—Herb.

Action—Used as an emmenagogue and a remedy for worms in children.



LADIES' MANTLE
(See page 201)



LARKSPUR
(See page 203)



LETTUCE, WILD
(See page 207)



LILY-OF-THE-VALLEY
(See page 209)

Preparation—Infusion (1 ounce to 1 pint) : Dose, a wineglassful frequently.

Distinctive character—Stem white, with cottony hairs. Leaves linear, about 1-2 inches long and $\frac{1}{4}$ inch wide, with short, linear-oblong, obtuse teeth arranged in four rows. The flowerheads are sub-globular, borne on long leafless flowerstalks, yellow, with the outer bracts lanceolate and pointed, and the inner, obtuse and membranous at the tips. The fruits have no pappus. The taste is bitter. Odour, strong and aromatic, recalling that of chamomile.

LEMON.

Citrus Limonia, Osbeck.

Fam. *Rutaceæ*.

Syn.—Limon, *Citrus Medica*, Var. β *Limonum*, Hook.

Parts used—Fruit, rind, juice, oil.

Action—Tonic, refrigerant, antiscorbutic. The juice may be freely used as such, or in syrup form as a refreshing drink in all febrile diseases. It is a popular remedy in coughs and colds. The rind is mostly employed for flavouring purposes both in household and in medicine. The juice of a lemon served with hot water and sugar is a well-known French remedy for colds.

Preparations—Syr. Limon. B.P. : Dose, $\frac{1}{2}$ -2 drachms. Syr. Succ. Limon. B.P.C. : Dose, $\frac{1}{2}$ -1 drachm. Tinct. Limon. B.P. : Dose, $\frac{1}{2}$ -1 drachm. Succ. Limon. B.P.C.

Distinctive character—This well-known fruit occurs in several varieties, which differ in thickness of rind, and consequent percentage of juice. Those with moderately thin peel, and of medium size, about 2 $\frac{1}{2}$ -3 inches long and 2 inches in diameter, are the best, and the Messina lemons have the finest flavour. Coarser lemons from Malaga arrive in September and October. These have thick skins and numerous seeds, and less juice. A medium-sized lemon yields about two ounces of juice containing 40-46 grains of citric acid per ounce, or about 9 $\frac{1}{2}$ per cent.

LETTUCE, WILD.*Lactuca virosa*, Linn.Fam. *Compositæ*.

Syn.—Lettuce-Opium.

Parts used—Concrete juice (Lactucarium), leaves.

Action—Anodyne, sedative, expectorant. Is frequently used in the form of a syrup to allay irritable coughs when a soothing agent is wanted. Also used as an anodyne and hypnotic when Opium cannot be given.

Preparations—Lactucarium: Dose, 5-15 grains. Fluid extract, leaves: Dose, $\frac{1}{2}$ -1 drachm Syrup: Dose, 2 drachms. Tincture: Dose, 30 drops. Ext. Lactuc. B.P.C.: Dose, 5-15 grains.

Distinctive character—Lactucarium is obtained by cutting the stem in sections and collecting the latex. Lettuce opium, or Lactucarium, is usually in angular fragments or quarters, curved on one side, indicating removal from a cup or saucer in which the milky juice has been collected and dried. Externally it is dark reddish brown, internally opaque and wax-like. Odour, resembling opium. Taste, very bitter.

LIFE EVERLASTING. *Antennaria dioica*, Gaertn.Fam. *Compositæ*.Syn.—Catsfoot, *Gnaphalium dioicum*, Linn.

Part used—Herb.

Action—Astringent. Used as a gargle or injection; internally as a styptic in looseness of bowels, &c.

Distinctive character—The herb is 4-8 inches high with obovate-spatulate root-leaves, which are smooth above but cottony beneath. Stems cottony Flower-heads hemispherical, shortstalked, terminal, in clusters of four or five together almost hidden by the long hairy pappus; the male with white, the female with rose coloured membranous scales (phyllaries). Taste, astringent. Odour, pleasant, stronger in the female

heads. The flowerheads, with about 1 inch of the flowerstalk, are usually sold under the name of Catsfoot.

LIFE ROOT.

Senecio aureus, Linn.

Fam. *Compositæ*.

Syn.—Squaw-weed, Golden Senecio.

Parts used—Herb, root.

Action—Emmenagogue, diuretic, pectoral, astringent, tonic. A most useful plant, deserving of careful attention. For suppressed menstruation it is considered by many as a specific, and given in conjunction with other remedies there is no doubt it has a certain and effectual action. In the first stages of consumption it is often used, as its tonic properties, combined with the pectoral, have a very beneficial effect. It is also valuable in gravel, stone, diarrhoea, &c. In suppression of menstruation, $\frac{1}{2}$ ounce of powder or fluid extract in 1 pint of water is taken in wineglassful doses four times a day until the desired effect is produced. In pulmonary complaints, 1 teaspoonful of the fluid extract should be taken in sweetened water or combined with other pectorals.

Preparations—Powdered root: Dose, $\frac{1}{4}$ –1 drachm. Solid extract: Dose, 5–10 grains. Fluid extract: Dose, $\frac{1}{2}$ –1 drachm. Senecin: Dose, 1–3 grains.

Distinctive character—Stems slender, fluted, 1–2 feet high, cottony, unbranched. Rhizome, 1–2 inches long, resembling arnica in size, but with more numerous roots, the bark of the roots hard and blackish surrounding a ring of short white wood bundles, which enclose a large dark-coloured pith. Root-leaves up to 6 inches long, with long leafstalks ovate, reniform. Stem-leaves decreasing in size upwards, incised and pinnatifid, and the upper ones sessile. Flowerheads few, in a loose corymb, $\frac{2}{3}$ to nearly 1 inch broad, and about half as long. Florets of the ray golden yellow, slightly reflexed, pistillate; the central tubular florets hermaphrodite. Pappus pilose. Taste, bitter, astringent, slightly acid. Odour, feeble.

following upon colds. It is also of service in restlessness, headaches, indigestion, and hysteria. The hot infusion of 1 drachm in 1 pint of boiling water is useful in checking diarrhoea from cold. Sometimes a bath is prepared in similar strength and the patient immersed therein to produce sleep.

Distinctive character—These flowers are really derived in commerce from more than one species of *Tilia*, the European species of which are closely allied. *Tilia platyphylla*, Scop., has cordate leaves, hairy beneath, and doubly serrate, and an oblong, obtuse bract attached to the lower third of the flowerstalk. The flowerstalk bears about three to six yellowish white five-parted flowers, with numerous stamens at the apex, of which the two anther cells are separated on short divergent stalks.

In Southern Europe the flowers of *T. argentea*, Desf., are used. They differ by their petals bearing staminodes on their inner surface, and in the jonquil-like odour of the flowers.

LIMEFRUIT.

Citrus Medica, var. *Acida*,
and *C. Limetta*.

Fam. *Rutaceæ*.

Syn.—*Citrus acris*, Mill.

Parts used—Fruit, juice.

Action—Refrigerant, antiscorbutic. The juice is popularly used as a beverage, by itself, sweetened as a syrup, or in conjunction with alcoholic beverages.

Distinctive character—The lime fruit exists in several varieties. The limes usually imported into this country resemble the lemon in colour and appearance, but are nearly globular instead of oval, and average only about $1\frac{1}{2}$ inch in diameter. The flavour of the rind is slightly different from that of the lemon, but the juice is equally acid.

LINSEED.*Linum usitatissimum*, Linn.

Syn.—Flaxseed.

Fam. *Linaceæ*.

Parts used—Seed, oil.

Action—Pectoral, demulcent, emollient. Is largely used as an addition to cough medicines, &c. The infusion of 1 ounce of seed to 1 pint of boiling water, and sweetened, may be taken in wineglassful doses. The crushed seeds make a valuable poultice in bronchitis, alone or with mustard. The addition of a little powdered Lobelia Seed makes it of value in ulcers, boils, &c. The oil is used externally as an application for burns, scalds, &c., and occasionally internally as a laxative.

Preparations—Oil. Dose, $\frac{1}{2}$ –1 fluid ounce. Inf. Lini B.P.C. : Dose, 1–4 fluid ounces. *Linum Contus.* Mucil. Lini B.P.C. Lin. Calc. Hydrox. c. Ol. Lini B.P.C.

Distinctive character—The seed varies much in size and in tint, a yellowish variety occurring in India. The English and Dutch varieties are usually imported, as being more free from weed seeds and dirt. If containing more than 4 per cent. of weed seeds, linseed may be considered to be adulterated. Of English and Dutch seeds, about twelve weigh one grain, but of some of the Indian and Mediterranean varieties, which are nearly twice as large, about six weigh one grain. The seed is brown, oval, pointed at one end, polished, and $\frac{1}{4}$ – $\frac{1}{2}$ inch long. The taste is mucilaginous and slightly unpleasant. Inodorous, except when powdered. The seeds yield about 6 per cent. of mucilage, which is contained in the seed coat. The seed itself contains from 32–40 per cent. of Linseed Oil. The meal of the seeds is sold in two forms, viz., crushed linseed, and linseed meal made by powdering linseed cakes from which the oil has been expressed. The former is preferable for poultices.

LIPPIA.*Lippia dulcis*, Trev.Fam. *Verbenacæ*.Syn.—*Yerba dulce*, Mexican Lippia.

Part used—Leaves.

Action—Demulcent, expectorant. It is an excellent remedy in coughs, colds, whooping cough, and bronchial affections in general. It also seems to act upon the bronchial mucous membrane as an alterative.

Dose, 20–60 grains.

Distinctive character—The leaves of Mexican Lippia are derived from *Lippia dulcis*, Trev. They are 1½–2 inches long, ovate, narrowed into the petiole, pointed, serrate above, with prominent veins, and are glandular hairy. The odour and taste are agreeably aromatic.

LIPPIA CITRIODORA. *Aloysia citriodora*, Ort.
Fam. *Verbenaceæ*.

Syn.—Lemon-scented Verbena, Herb Louisa, *Verbena triphylla*, L'Hérit., *Lippia triphylla*, L'Hérit.

Action—Febrifuge and sedative. Decoction, 1 ounce to 1 pint. Wineglassful three times a day.

Uses—The dried leaves are very fragrant and are used in sachets, &c.

Distinctive character—The leaves are opposite on the stem, often three in a whorl, or even four, elongate-lanceolate, attenuated at both ends, about 3–4 inches long, 1½ inch wide in the middle, with the lateral veins almost at a right angle to the midrib. When rubbed they give off a lemon odour. The taste resembles that of the lemon.

LIQUORICE ROOT. *Glycyrrhiza glabra*, Linn.
(And other species.) Fam. *Leguminosæ*.

Syn.—Licorice.

Part used—Root.

Action—Demulcent, pectoral, emollient. One of the most popular and well-known remedies for coughs, consumption, and chest complaints. Beach mentions the following recipe as being used by the late Dr. Malone, of London, and speaks most highly of its efficacy :

"Take a large teaspoonful of Linseed, 1 ounce of Liquorice Root, and $\frac{1}{4}$ lb. of best raisins. Put them into 2 quarts of soft water and simmer down to 1 quart. Then add to it $\frac{1}{4}$ lb. of brown sugar candy and a tablespoonful of white wine vinegar or lemon juice. Drink $\frac{1}{2}$ pint when going to bed and take a little whenever the cough is troublesome."

N.B.—It is best to add the vinegar to that quantity which is required for immediate use.

Liquorice is one of the best covers for bitter vegetable medicines such as Cascara, &c.

Preparations—Ext Glycyrrh. B.P. Dose, 10–30 grains. Ext. Glycyrrh Liq. B.P. Dose, $\frac{1}{2}$ –1 drachm. Pulv. Glycyrrh. Co. B.P. Dose, 1–2 drachms. Troch. Glycyrrh B.P.C.

Distinctive character—The root varies in size and character. The English-grown root is usually sold fresh. It is greyish brown externally, with transverse scars, and internally yellowish and fibrous. The transverse section shows a radiate structure. The taste is sweetish, and the odour, when chewed, pea-like, but characteristic. The root of commerce often contains, especially the Spanish and Russian sorts, a large proportion of underground stem, which is less sweet and can be recognised by the absence of transverse scars, and the presence of a central pith. The Russian and Persian Liquorice are often in large pieces, $\frac{3}{4}$ –1 inch or more in diameter, and has a red-brown scaly surface, and a slight bitterness and acidity. They are derived from *G. glabra*, var. *glandulifera*, W. and K. The Russian sort is also sold in a decorticated state. The peeled and unpeeled roots are both official in the B.P. 1932.

LITMUS. *Roccella tinctoria*, *R. Montagnei*, D.C.

(And other species) Fam *Roccellaceæ*.

Syn.—Lacmus, Persio

Part used—Pigment. Obtained from various lichens.

Used as an analytical indicator. The prepared Litmus

is made into various forms, such as papers or tinctures, and as such used in chemistry for testing purposes. The blue colour, which is natural, has the property of turning to red whenever substances of an acid character are brought into contact with it. This acquired red colour will again return to blue in contact with alkalies. This colouring matter is of a pure deep blue colour, and is usually sold in the form of granules, or in a prepared solution, or impregnated paper.

Cudbear (Syn.—Persio) is a purplish red powder prepared from lichens of the same botanical origin. Archil or Orchilla is another colouring matter obtained from the same source and appears in three forms, liquid, crystal and powder.

Cudbear is in the B.P.C., together with one preparation, Tinct. Pers. B.P.C.

LIVERWORT, AMERICAN.

Anemone hepatica, Linn.

Fam. *Ranunculacæ*.

Syn.—Kidneywort, Liverleaf, *Hepatica triloba*, Choisy.

Part used—Herb.

Action—Tonic, astringent, pectoral. A mild remedy in disorders of the liver, indigestion, &c. Possessing pectoral properties, it may be used in coughs, bleeding of the lungs, and chest diseases. The infusion of 1 ounce to 1 pint of boiling water is taken in doses of $\frac{1}{2}$ tea-cupful frequently.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –2 drachms.

Distinctive character—The leaves are long-stalked, leathery, smooth, dark green above, rounded, about 2 inches in diameter, with three broad angular lobes. Flowers solitary. Fruit of several achenes. Taste, slightly astringent and bitterish. Inodorous.



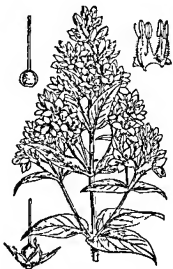
LIME FLOWERS

(See page 209)



LINSEED

(See page 211)



LOOSESTRIFE

(See page 218)



LOVAGE, Scotch

(See page 218)

LIVERWORT, ENGLISH. *Pelt-gera canina*, Hoffm.
Fam. *Lichenes*.

Syn.—Liverwort, Ground Liverwort, *Lichen caninus*.

Part used—Lichen.

Action—Deobstruent, slightly purgative. Held in esteem as a remedy for liver complaints, but is generally combined with other remedies. Was believed to be a specific against rabies, but has fallen into disuse. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses, repeated frequently.

Preparations—Fluid extract : Dose, $\frac{1}{2}$ –2 drachms.

Distinctive character — This lichen has rounded lobes, an unequal surface, and greyish colour, and is downy above, but beneath is whitish, with pale nerves and white rootlets. The fruit, when present, forms blackish oblong spots on the tips of the upper surface.

LOBELIA.

Lobelia inflata, Linn.

Fam. *Campanulaceæ*.

Syn.—Indian Tobacco, Pukeweed.

Parts used—Herb, seeds. Cultivated in Eastern United States of America.

Action — Expectorant, emetic, diaphoretic, anti-asthmatic, stimulant. This plant is extensively employed, and is regarded as one of the most valuable remedies ever discovered. It is chiefly used as an emetic, and may be prescribed wherever one is indicated. In bronchial troubles and pulmonary complaints its action is speedily and wonderfully beneficial. All accumulation of mucus is instantly removed after a full dose of the infusion, and many lives have been saved by its timely use. In croup, whooping cough, and asthma it is specially valuable, and it may be regarded as certain to give relief in the distressing paroxysms which characterise the last-named disease; in fact it may be used wherever there is bronchial spasm. In cases of infantile

cough and bronchitis, when the child seems likely to be suffocated by phlegm, a dose will remove obstruction. Dr. Thomson recommends Lobelia in nearly every complaint, and there is no doubt of its general applicability in some way to most diseases. In liver or stomach troubles an emetic of Lobelia will remove all immediate obstructions, and pave the way for the use of other remedial medicines. Mixed with powdered Slippery Elm it forms a stimulating poultice for inflammations, ulcers, swellings, &c The infusion of 1 ounce of powdered herb in 1 pint of boiling water may be taken in doses of $\frac{1}{2}$ -1 wineglassful.

Preparations—Powdered herb Dose, 3-10 grains. Liquid extract. Dose, 10-30 minims. Solid extract. Dose, 2-4 grains. Acid tincture. Dose, 15-60 minims. Tinct. Lobel Simp B.P.C. Dose, 10-30 minims. Tinct. Lobel. Æther B.P. Dose, 5-15 minims. Syrup: Dose, 1-4 drachms. Mist. Lobel et Stramon. Co. B.P.C.: Dose, $\frac{1}{2}$ -1 fluid ounce. Pulv. Lobel Co. B.P.C. Pulv. Stramon Co B.P.C.

Distinctive character—Stem slightly hairy, angular. Leaves alternate, 1-3 inches long, sessile, ovate-lanceolate, obscurely toothed, with small whitish glands on the edge. The fruit consists of a flat oval capsule containing a number of minute ovate-oblong, brown seeds, about $\frac{1}{8}$ inch long, with a reticulated, pitted surface. Taste, burning acrid, like that of tobacco. Odour, slight

LOGWOOD. *Haematoxylon campechianum*, Linn.

Fam Leguminosæ.

Syn.—Haematoxylon

Part used—Wood. Imported from Central America

Action—Astringent. Being less constipating than other astringents, this drug may be used in cases of diarrhœa, dysentery, hæmorrhage from lungs, uterus, and bowels, infantile diarrhœa, &c The decoction may be freely given in doses of a wineglassful when required, or the solid extract in the form of pills

Preparations—Dec. Haematox. B.P.C.: Dose, $\frac{1}{2}$ –2 fluid ounces. Ext. Haematox. Liq. B.P.C.: Dose, $\frac{1}{2}$ –2 drachms. Ext. Haematox. B.P. 1885: Dose, 10–30 grains.

Distinctive character—Logwood is usually sold in the form of chips for dyeing purposes, and has a dark, purplish brown colour and a greenish iridescence, which indicates that it has been submitted to fermentation. For medicinal purposes the unfermented chips, which have a bright, reddish-brown tint, are preferable. It can also be obtained in the form of extract, which is used as a dye and in the manufacture of ink.

Sappan (*Cæsalpina Sappan*) from India, Fustic (*Chlorophora tinctoria*) from S. America, Brazil Wood (*Cæsalpina brasiliensis*) from Brazil, are used as dyes and consist of the heart-wood of trees.

LOOSESTRIFE.

Lysimachia vulgaris, Linn.

Syn.—Yellow Loosestrife.

Fam. Primulacæ.

Part used—Herb.

Action—Astringent, expectorant. Useful in bleeding of mouth, nose, and wounds. It restrains profuse menstruation. As a gargle it finds use in relaxed throat, &c.

Distinctive character—The herb is 2–3 feet high, bearing opposite leaves, or sometimes three together, elongate-lanceolate, nearly stalkless, 3–6 inches long by $1\frac{1}{2}$ inch broad, with short, spreading, soft hairs, especially on the stem and veins beneath the leaf. Flowers yellow, about $\frac{3}{4}$ inch in diameter, in axillary and terminal panicles. Taste, astringent, slightly acid. Odour, none.

LOVAGE.

Levisticum officinale, Koch.

Fam. Umbelliferae.

Syn.—*Ligusticum Levisticum*, Linn., Chinese Tang-kui or Man-mu.

Part used—Root.

Action—Diuretic, carminative. Used in febrile affections and in stomach disorders ; also for dysmenorrhœa.

Preparation—Fluid extract : Dose, 5–30 minims.

Distinctive character—The rootstock or upper portion, usually about $1\frac{1}{2}$ inch long and $2\frac{1}{2}$ inches thick, sometimes shows leaf-scales at the apex, with annular rings below it, and lateral branches 2–4 inches long and $\frac{1}{2}$ – $\frac{3}{4}$ inch in diameter. The external surface is greyish brown and in the rootlets is furrowed longitudinally. The bark of the root is thick, spongy, and whitish, occupying nearly half the diameter, and is separated by a darker line from the woody centre, which is radiate and yellowish and glistening oil cells are visible in the transverse section. In the outer part of the root bark there are often small cavities. It has a sweet, slightly bitter taste, and a flavour like that of Fœnugreek.

This must not be confused with the Scotch Lovage (*Ligusticum Scoticum*), which is hot and disagreeable, and is sometimes chewed by the Highlanders as tobacco.

LUCERNE.

Medicago Sativa, Linn.

Fam. *Papilionaceæ*.

Syn.—Alfalfa. Purple Medick.

Part used—Whole herb.

Action—Lucerne is given to cattle for fattening purposes. In medicine the infusion of 1 ounce to 1 pint of milk or water in cupful doses is prescribed for increasing the weight and to put on flesh.

Distinctive character—Herb about $1\frac{1}{2}$ foot high. Leaves trifoliate. Leaflets obovate, emarginate, mucronate, dentate above, about $\frac{3}{4}$ inch long and $\frac{1}{2}$ inch broad, with veins at an acute angle and appressed hairs. Flowers, when present, usually blue, in a many-flowered raceme. Pods loosely spiral with two to three turns, with appressed hairs.

LUNGWORT.*Sticta pulmonaria*, Linn.

Syn.—Oak Lungs, Lungmoss.

Fam. *Lichenes*.

Part used—Herb.

Action—Astringent, mucilaginous, pectoral, healing. Especially valuable in the treatment of coughs, lung complaints, asthma, &c. It heals the parts affected and takes away inflammation. The infusion of 1 ounce in 1 pint of boiling water is taken in frequent doses of a wineglassful.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—This lichen is flat, greyish or greenish brown, leathery, branched in a forked

evident as corresponding whitish convexities. Taste, mucilaginous, bitter, and a little acrid. Odour, characteristic.

The plant Lungwort (*Pulmonaria officinalis*) has similar properties. It is easily recognised by its spotted leaf and violet-blue flowers.

MACE.*Myristica fragrans*, Houtt.Syn.—*Arillus Myristicæ*.Fam. *Myristicaceæ*.

Action—Stimulating, carminative. Used chiefly as a flavouring agent in cookery and medicine. The powdered Mace may be used in doses from 5–20 grains.

Distinctive character—The arillus known as Mace is a growth outside the shell of the nutmeg seeds. It is about $1\frac{1}{2}$ inch long and $\frac{1}{10}$ – $\frac{1}{8}$ inch thick, irregularly branched, when dry of an orange-brown colour, has a horny, translucent appearance, but is brittle, and exudes oil when pressed by the nails. Taste, strongly aromatic, pungent. Odour, characteristic.

Two other varieties of Mace occasionally appear in commerce, viz., Bombay Mace (*Myristica malabarica*, Lam.), which is nearly tasteless and of a redder colour; and Macassar Mace (*Myristica argentea*, Warb.), which is very acrid, and unfit for medicinal use.

MADDER.*Rubia tinctorum*, Linn.Fam. *Rubiaceæ*.

Syn.—Dyer's Madder, Garance (Fr.).

Part used—Root.

Action—Although not used generally in medicine, this has at various times been reputed effectual for promoting menstrual and urinary discharges. Its principal use is found in the technical arts as a dyestuff—Turkey red. Madder has been used as a remedy in liver diseases, jaundice, gall, and spleen complaints. Root, leaves, and seeds are all reputed as medicinally active.

Dose, 10–30 grains

Distinctive character—The root, as met with in commerce, consists of short cylindrical pieces about $\frac{1}{8}$ – $\frac{1}{4}$ inch in diameter, with a thin, easily-detached, corky layer, leaving a red-brown, longitudinally-furrowed inner bark. The transverse section shows a pale red column, marked with concentric striæ. Taste, sweetish, then acid. Odour, slight

MAGNOLIA.*Magnolia Virginiana*, LinnFam. *Magnoliaceæ*.Syn.—*Magnolia glauca*, Linn, also *M. acuminata* and *M. tripetala*

Part used—Bark

Action—Stimulant, tonic, aromatic, diaphoretic. A popular remedy for rheumatism. Used also in malaria.

Preparations—Powder in warm infusion. Dose, $\frac{1}{2}$ –1 drachm. Fluid extract. Dose, $\frac{1}{2}$ –1 drachm

Distinctive character—The bark occurs in long, fibrous strips, 6–12 inches long, and $\frac{3}{4}$ –1 inch broad, with the corky part removed, the outer surface rough, and almost granular, and coarsely pitted, the inner surface striated, but nearly smooth. Fracture, shortly fibrous, except the inner portion, which is formed of tough, fibrous layers. Taste, slightly astringent and irritating. Odour, none

MAIDENHAIR. *Adiantum Capillus-Veneris*, Linn.

Fam. *Filices*.

Part used—Herb.

Action—Expectorant. Is used as a remedy throughout most parts of the world. Numerous quantities are employed in the preparation of the well-known "Sirop de capillare." It may be used in all coughs, throat affections, and bronchial disorders. The infusion of 1 ounce to 1 pint of boiling water may be taken frequently in wineglassful doses. To improve taste add sugar and orange flower water.

Distinctive character—Stem slender, black, shining. Frond repeatedly forked, bearing short, wedge-shaped leaflets with forked veins, and membranous indusia covering the spore-cases at the outer edge of the under surface of the incised leaflets. Taste, sweetish and a little astringent. Odour, weak.

MALABAR-NUT.

Adhatoda Vasica, Nees.

Fam. *Acanthaceæ*.

Syn.—Adatodai, Arusa, Adulsa, Bâkas, *Justicia Adhatoda*, Linn.

Part used—Leaves.

Action—Antispasmodic, expectorant, febrifuge. In India this drug is highly esteemed as a remedy in all bronchial, asthmatic, and pulmonary diseases. It is mostly administered in the form of an infusion, although in asthma the leaves are sometimes smoked. European practitioners have used it with success in intermittent and typhus fevers, and also in diphtheria.

Preparations—Fluid extract Br. Add.: Dose, 20-60 minims. Tincture Br. Add.: Dose, $\frac{1}{2}$ -1 drachm.

Distinctive character—The leaves are opposite, short-stalked, lanceolate, entire, taper-pointed, 5-6 inches long and $1\frac{1}{2}$ inch broad, smooth on both sides. Taste, bitter. Odour, tea-like.



LUCERNE

(See page 219)



LUNGWORT

(*Pulmonaria officinalis*)

(See page 220)



MAIDENHAIR

(See page 222)



MALE-FERN

(See page 224)

MALE-FERN. *Dryopteris Filix-mas*, Linn.
Fam. *Polypodiaceæ*.

Syn.—*Aspidium Filix-mas*, Schwartz., Male Shield Fern.

Part used—Root.

Action—Tæniifuge, vermifuge, anthelmintic. Mostly used for expulsion of tapeworm. The powder or the fluid extract may be taken, but the ethereal extract or oleoresin, if given in pill or capsule form, is the more pleasant way of taking it. The last dose should be followed by a purgative of castor oil.

Preparations—Ext. Filic. B.P. (Oleoresin): Dose, $\frac{3}{4}$ – $1\frac{1}{2}$ drachm. Powdered root: Dose, 1–3 drachms. Liquid extract: Dose, 1–4 drachms.

Distinctive character—The dried rootstock averages about $1\frac{1}{2}$ to $2\frac{1}{2}$ inches in diameter and about 3 inches long, and consists, as met with in commerce, of the scaly leaf-bases attached to the rhizome, and trimmed free of rootlets. The transverse section shows 10 large wood bundles in a ring, and some scattered smaller ones, but the leaf base shows only eight, forming an irregular circle. It is reddish brown externally, and somewhat greenish internally. Taste, bitterish, sweet, acrid, and astringent. Flavour and odour, unpleasant.

MANACA. *Brunfelsia Hopeana*, Hook.
Fam. *Solanaceæ*.

Syn.—*Franciscea uniflora*, Pohl.

Part used—Root.

Action—Alterative, diuretic, antirheumatic. Used as a rheumatic remedy in South America. Is considered a most valuable alterative in scrofula, syphilis, and rheumatic arthritis. A decoction of 1 ounce in 1 pint of water is taken in tablespoonful to wineglassful doses.

Preparation—Fluid extract: Dose, 10–60 drops.

Distinctive character—The rhizome is of a reddish brown colour, and occurs in pieces of 3 or more inches long, usually smooth, with knotty joints at intervals of about $1\frac{1}{2}$ –2 inches, having a depressed stem-scar above, and a few brittle roots beneath it. Fracture mealy, whitish, showing 20–40 yellow wood bundles enclosing a central pith. This drug must be carefully distinguished from English Mandrake (see *Bryonia dioica*).

MANNA.

Fraxinus Ornus, Linn.

Fam. *Oleaceæ*.

Syn.—Flake Manna. Cultivated in Sicily.

Part used—Concrete exudation.

Action—Nutritive, laxative. A useful laxative for children and infants, and for females during pregnancy. May be used alone in doses of a teaspoonful up to 1 or 2 ounces, or combined with other laxatives and carminatives.

Distinctive character—A saccharine exudation from the incised bark of the tree. In pale yellowish or whitish pieces, irregular on one side and smoother and curved on the other, rarely more than 1 inch broad and 2–3 inches or more long. Taste, sweet, honey-like, without bitterness. Odour, slight.

MAPLE, RED.

Acer rubrum, Linn.

Fam. *Sapindaceæ*.

Syn.—Swamp Maple.

Part used—Bark.

Action—Astringent. Used by American Indians as an application to sore eyes.

Distinctive character—In long quilled pieces 6–12 inches long, externally blackish, merable fine transverse small warts. Inner bark, in very tough and fibrous layers, pale reddish brown or buff. Taste, astringent and faintly bitter.



MEADOWSWEET

Spiraea Ulmaria



MARIGOLD.

Calendula officinalis, Linn.Fam. *Compositæ*.

Syn.—*Caltha officinalis*, Marygold, Garden Marigold, Calendula.

Parts used—Flowers, herb.

Action—Stimulant, diaphoretic. Chiefly used as a local remedy. Given internally it assists the local action and prevents suppuration. Useful in chronic ulcers, varicose veins, &c. The infusion of 1 ounce to 1 pint of boiling water may be taken in doses of a tablespoonful or wineglassful, and used as an application for external purposes.

Preparations—Fluid extract: Dose, $\frac{1}{4}$ –1 drachm. Tinct. Calend. B.P.C.

Distinctive character—Stem angular, and, as well as the leaves, pubescent. Lower leaves spatulate with a large stalk, the upper sessile amplexicaul terminated by a small obtuse point. The flowerheads yellow, with the tubular florets sterile. Fruit semi-circular, rough, angular, without pappus. Taste, bitter. Odour, strong and unpleasant.

MARJORAM, SWEET. *Origanum Majorana*, Linn.Fam. *Labiata*.

Syn.—*Majorana hortensis*, Moench.

Parts used—Herb, leaves.

Action—Tonic, emmenagogue, stimulant. Hardly ever used for medicinal purposes, but is employed in cookery as a seasoning. The volatile oil—*Oleum majoranæ*—is an excellent external application for sprains, bruises, &c.

Distinctive character—The herb is about 10 inches high, branched above, with opposite, whitish, small, oval-obtuse leaves, about $\frac{1}{2}$ inch long and $\frac{1}{2}$ inch broad, and small flowers almost hidden by green bracts arranged in small hop-like, rounded spikes or heads forming a terminal paniced cyme. Flowers white or pink, with the calyx open like one of the bracts. Taste, aromatic, agreeable.

MARJORAM, WILD. *Origanum vulgare*, Linn.
Fam. *Labiatae*.

Parts used—Herb, oil.

Action—Emmenagogue, stimulant. The whole herb is medicinal and contains a volatile oil, which is separated by distillation. Perspiration may be produced by a warm infusion, and this is also taken to promote the menstrual flow, when suppressed by cold. The oil is stimulant and rubefacient, and often used as a liniment.

Distinctive character—Herb, with opposite-stalked, usually entire leaves which are ovate, hairy, but not whitish. The purplish flowers are arranged in oval or oblong heads with usually pink bracts, and the calyx is tubular and five-toothed. Taste and odour, thyme-like. The oil sold under the name is distilled from *Thymus vulgaris*, Linn., in France; that of the Wild Marjoram, *Origanum vulgare*, is not an article of commerce.

MARSHMALLOW. *Althaea officinalis*, Linn.
Fam. *Malvaceae*.

Syn.—Mallards, Guimauve, Schloss Tea.

Parts used—Leaves, root.

Action—Demulcent, emollient. This plant constitutes a popular remedy for coughs, bronchitis, &c., generally in combination with other remedies. In painful complaints of the urinary organs, gonorrhœa, cystitis, it exerts a relaxing effect upon the passages as well as acting as a curative. The powdered or crushed fresh roots make a good poultice, which may be relied upon to remove the most obstinate inflammation and prevent mortification. Its powers in this direction are so great that it has been termed Mortification Root. The addition of Slippery Elm is an advantage, and it should be applied to the part as hot as can be borne, renewing the poultice when dry. An infusion of 1 ounce of leaves to 1 pint of boiling water is taken frequently in wineglassful doses.



MARJORAM, WILD

(See page 223)



MARSHMALLOW

(See page 228)



MASTERWORT

(See page 230)



MAYWEED

(See page 232)

Preparations—Fluid extract, leaves: Dose, $\frac{1}{2}$ –2 drachms. Syr. Alth. B.P.C. (root): Dose, $\frac{1}{2}$ –2 drachms.

Distinctive character—The root is greyish white externally, with transverse scars, internally white and fibrous. It is generally sold in the decorticated state, when the outer surface is fibrous and white. It has

1 tapers

Odour,

yellowish

decoction of unpleasant odour. The leaves are greyish green and velvety, due to a dense covering of stellate hairs, cordate-ovate, pointed, irregularly serrate at the margins, about $2\frac{1}{2}$ inches long and $1\frac{1}{2}$ inch broad, brittle when dry. Flowers pink, with the stamens united into a tube, and the anthers kidney-shaped and one-celled. The calyx has eight linear bracts attached to its outer surface.

MASTERWORT. *Imperatoria Ostruthium*, Linn.

Fam. *Umbellifera*.

Part used—Root.

Action—Stimulant, antispasmodic, carminative. Recommended in asthma, apoplexy, and menstrual complaints. Has also been of use in flatulence and dyspepsia. A decoction of 1 ounce to 1 pint of water is taken in wineglassful doses.

Preparation—Fluid extract: Dose, 1–2 drachms.

Distinctive character—Rhizome cylindrical, compressed, knotty at intervals of about $\frac{1}{2}$ inch, 2–4 inches long and $\frac{1}{2}$ – $\frac{3}{4}$ inch in thickness, with few scattered roots and scattered, rounded warts, sometimes in shorter, conical, compressed pieces, some pieces terminating in nearly smooth underground suckers about $\frac{1}{4}$ inch in diameter. Fracture short, hard, and tough, showing a central pith, surrounded by a circle of oil cells, another circle of similar cells occurring in the bark. Taste and odour, ivy-like but pungent.

MASTIC.

Pistacia Lentiscus, Linn.
Fam. *Anacardiaceæ*.

Syn.—Mastich, Lentisk. Collected in Scio—Grecian Archipelago.

Part used—Resin.

Use—The resin by itself or in a spirituous solution is used in dentistry as a filling for carious teeth. In the technical arts it is used for the manufacture of varnishes, cements, &c.

Preparation—Tinct. Ammon. Co. B.P.C. (Eau de Luce).

Distinctive character—The resin occurs in small, rounded, or pear-shaped, transparent tears which, when masticated, forms a dough-like mass, unlike gum-sandarac, which is in cylindrical tears and goes to powder when chewed. Taste, cedar-like. Odour, slight.

MATICO.

Piper angustifolium, R. and P.
Fam. *Piperaceæ*

Syn.—*Artanthe elongata*, Miq., Matica.

Part used—Leaves.

Action—Astringent, stimulant, diuretic. Has been recommended and used in leucorrhœa, gonorrhœa, piles, and chronic mucous discharges. Also in bleeding from the lungs, dysentery, and other hæmorrhages. Its action is very similar to that of cubebs. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses.

Preparations—Powdered leaves : Dose, $\frac{1}{2}$ –2 drachms.
Fluid extract : Dose, $\frac{1}{4}$ –1 drachm.

Distinctive character—Leaves usually more or less broken, but easily recognised by their surface being reticulated on both sides, convexly on the upper surface, due to the deeply sunk veinlets, and the under surface

being similarly tessellated with corresponding minute depressions clothed with shaggy hairs. The stems are slender, and, as well as the hairs, have knotted joints. Taste, aromatic and bitterish. Odour, herbaceous.

MAYWEED.

Anthemis Cotula, Linn.

Fam. *Compositæ*.

Syn.—*Maruta Cotula*, D.C., *Maruta fœtida*, Cass., Wild Chamomile, Dog Chamomile, Dog Fennel, Cotula.

Part used—Herb.

Action—Tonic, antispasmodic, emmenagogue, emetic. Has been used with success in sick headache, in convalescence from fevers, and in amenorrhœa. The warm infusion of 1 ounce in 1 pint of boiling water is taken in wineglassful doses when required.

Distinctive character—The herb resembles Chamomile in appearance, but the white flowers have not membranous scales at their base. When the florets are pulled off there remain only a few bristly paleæ on the top of the conical receptacle. The outer florets have usually no styles. Taste, disagreeable and acrid. *Anthemis arvensis*, Linn., a common cornfield weed, has lanceolate paleæ, and the white florets of the ray have always styles.

MEADOW FERN. *Comptonia asplenifolia*, Gaertn.

Fam. *Myricacæ*.

Syn.—*Comptonia peregrina*, *Myrica asplenifolia*, Sweet Fern, Ferngale, Spleenwort.

Part used—Burs.

Action—Tonic and astringent. Decoction of 1 ounce to 1 pint of water taken in wineglassful doses is said to be useful for diarrhœa.

Distinctive character—A shrubby plant growing in sterile soil from Nova Scotia to Michigan. It has a resinous spicy odour.

MEADOW LILY.

Lilium candidum, Linn.Fam. *Liliaceæ*.

Syn.—White Lily, Madonna Lily.

Part used—Bulb.

Action—Mucilaginous, demulcent, astringent. Combined with Life Root it is of value in treating leucorrhœa, prolapse of the womb, and female complaints generally. The fresh bulb has been used with success in dropsy. A decoction of the bulb in water or milk is taken internally in wineglassful doses. Externally the latter forms a useful cataplasm for tumours, ulcers, and external inflammations.

Distinctive character—The bulb consists of free, fleshy scales, lanceolate and curved, about $1\frac{1}{2}$ inch long, and rather less than $\frac{1}{2}$ inch broad in the centre. Taste, mucilaginous, bitter, and unpleasant.

MEADOWSWEET.

Spiraea Ulmaria, Linn.Fam. *Rosacæ*.

Syn.—Queen-of-the-meadow Herb, Bridewort, Lady-of-the-meadow, Dolloff.

Part used—Herb.

Action—Aromatic, astringent, diuretic. Has a pleasant taste and is incorporated in many herb beers. A good remedy in strangury, dropsy, &c., and in children's diarrhœa, for which alone it may be deemed a specific. The infusion of 1 ounce to 1 pint of water is taken in wineglassful doses.

Preparation—Fluid extract Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The leaves are interruptedly pinnate, having a few large serrate leaflets and very small intermediate ones, dark green above and whitish and downy beneath, the terminal lobes larger and three to five lobed. Flowers small, yellowish white, in large, irregularly-branched, dense cymes. Taste, astringent and slightly aromatic.

MELILOT.*Melilotus officinalis*, Linn.Fam. *Leguminosæ*.

Syn.—King's Clover.

Part used—Herb.

Action—Aromatic, emollient, carminative. Relieves flatulence and is taken internally for this purpose. Externally it is applied as a fomentation or poultice for pains and aches.

Distinctive character—Two species are sold under this name. Both have trifoliate leaves and yellow flowers, but *M. arvensis*, Lamk., has small, *glabrous*, one to two seeded pods, and *M. officinalis*, Willd., has *hairy* pods. The leaves are obcordate, serrate in the former, and ovate-truncate in the latter. Taste and odour, like hay.

MESCAL BUTTONS. *Lopophora Lewinii*, Henn.Fam. *Cactacæ*.

Syn.—Muscal Buttons, Pellote, *Anhalonium Lewinii*, Henn.

Part used—Fruit.

Action—Cardiac tonic, emetic, narcotic. This drug has been reputed as a remedy in all paroxysmal complaints, dyspnœa, angina pectoris, &c. It should be used with caution, as it causes emesis in even small doses.

Distinctive character—The dried tops of this cactus are about $1\frac{1}{4}$ – $1\frac{1}{2}$ inch in diameter and about $\frac{1}{2}$ inch thick, the centre covered with white silky tufts of hairs, with a few solitary tufts scattered over the surface. It is from these tufts that the small vase-shaped pink flowers arise, but the flowers and fruits are not often seen in the drug. Fracture short and horny, pale brown. Taste, gritty, mucilaginous, slightly acrid, pungent, and bitterish.

100

101

102

MEZEREON.*Daphne Mezereum*, Linn.(And other species.) Fam. *Thymelæaceæ*.

Syn.—Spurge Olive, Spurge Laurel.

Parts used—Bark, root, rootbark.

Action—Stimulant, alterative, diuretic. Acts favourably in syphilis, scrofula, and rheumatism. The decoction of $\frac{1}{2}$ ounce in 1 pint of water is taken in wineglassful doses. Externally it is used as a lotion to blistered surfaces, indolent ulcers, &c.

Preparations—Powdered bark: Dose, 10 grains.
Fluid extract: Dose, 2-10 drops.

Distinctive character—The root of *Daphne Mezereum* is brownish, very tough, in branched pieces about 1-1 $\frac{1}{2}$ feet long, the epidermis peeling off when bent and the inner bark consisting of very fine strong fibres. The bark of *D. Gnidium*, L., which is used in France under the name of "Garou," occurs in commerce in this country, is usually sold in the form of bark only. It has a purplish brown tint, and the stem-bark is slightly hairy. The brown stem-bark of *D. Laureola*, L., which is also sold as Mezereon Bark, has the leaf scars crowded at well-defined intervals. Taste, very acrid and caustic. Odour, unpleasant in the fresh state.

MISTLETOE.*Viscum album*, Linn.Fam. *Loranthaceæ*.

Syn.—European Mistletoe, Birdlime Mistletoe.

Part used—Leaves.

Action—Nervine, antispasmodic, tonic, narcotic. Has been used with benefit in hysteria, epilepsy, and other nervous diseases. Is of value in uterine hæmorrhages. Dr. Ellingwood thinks it useful in amenorrhœa and dysmenorrhœa, and advises it to be taken as a heart tonic in typhoid fever, also for blood pressure.

Preparations—Powdered leaves: Dose, $\frac{1}{2}$ -2 drachms.
Fluid extract: Dose, $\frac{1}{4}$ -1 drachm.

Distinctive character—The leaves are opposite, leathery, rather tough, oblanceolate, about 2 inches long, entire at the margins, with a rounded apex, with four or five longitudinal veins, often with the stems broken at the joints, in pieces about $2\frac{1}{2}$ inches long. The Mistletoe used in the United States is *Phoradendron flavescens*, Nutt. It has similar but shorter leaves of a yellower green tint and somewhat pubescent. Taste, insipid. Inodorous.

MONSONIA.

Monsonia ovata, Cav.

Fam. Geraniaceæ.

Part used—Plant.

Action—A South African remedy for acute and chronic dysentery. Particularly recommended in ulcerated condition of lower bowels.

Preparation—Tincture. Dose, 1-4 drachms every three or four hours.

Distinctive character—Stems $1\frac{1}{2}$ foot high, branched, with slender spreading hairs. Leaves opposite, stalked, ovate, serrate, about $\frac{1}{4}$ inch long and $\frac{1}{2}$ inch broad, with filiform stipules. Flowers, when present, geranium-like, white, axillary, stalked, solitary or two borne on one peduncle. Taste, astringent, slightly aromatic, and faintly acrid.

MOTHERWORT.

Leonurus cardiaca, Linn.

Fam. Labiatae.

Part used—Herb

Action—Antispasmodic, tonic, nervine, emmenagogue. Is especially valuable in female weakness and hysteria, acting as a tonic to the generative organs and allaying nervous irritability. It promotes the flow of the menses, and generally braces up the uterine membranes. It will be found useful as a simple tonic in heart diseases or weakness and in recovery from fevers when other tonics

are inadmissible. The infusion of 1 ounce of herb to 1 pint of boiling water is taken in wineglassful doses.

Preparations—Powdered herb : Dose, $\frac{1}{2}$ –1 drachm. Solid extract : Dose, 5–15 grains. Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stems square. Leaves stalked, palmately five-lobed, the lobes trifid at apex, coarsely serrate, reticulate veined, the veinlets prominent beneath, with slender curved hairs ; the upper leaves trifid, entire, and wedge-shaped below. Flowers pinkish, in thick whorls in the axils of the upper leaves ; salyx teeth rigid and sharp. Taste, very bitter. Odour, none.

MOUNTAIN ASH. *Pyrus Aucuparia*, Gaertn.

Fam. *Rosaceæ*.

Syn.—*Sorbus Aucuparia*, Linn., *Mespilus Aucuparia*, Web., Rowan Tree, Witchen.

Parts used—Fruit, bark.

ripe berries furnish an
gle in sore throat and in-
of the bark is given in
diarrhœa, and used as a vaginal injection in leucor-
rhœa, &c.

Distinctive character—The fruit is red and globose, with calyx teeth at the apex, and two to three-seeded cells. The bark has a soft, spongy, yellowish grey outer layer, and an inner thicker portion, with many layers of a light brown colour. The transverse section shows that the layers have abundant stone cells but are without visible radiate structure. Fracture rough, short, and coarsely granular with few fibres. Taste, bitterish. Odour, none.

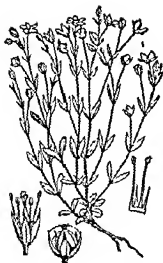
American Mountain Ash Bark is derived from *Pyrus Americanus*, D.C.

The Rowan Tree was supposed to be efficacious against witchcraft, both in Europe and India.



MOTHERWORT

(See page 237)



MOUNTAIN FLAX

(See page 240)



MOUSEAR

(See page 242)



MUGWORT

(See page 242)

MOUNTAIN FLAX. *Linum catharticum*, Linn.Fam. *Linaceæ*.

Syn.—Purging Flax.

Part used—Herb.

Action—Laxative, cathartic. Is preferred to Senna, though the action is very similar. Used in cases of constipation, gravel, dropsy, &c., generally combined with other herbs. Also recommended in muscular rheumatism and catarrhal affections. The infusion of 1 ounce in 1 pint of boiling water is taken in wineglassful doses.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stem simple, 2–6 inches high. Leaves opposite, small, the lower obovate, the upper lanceolate entire. Flowers small, white, five-parted with serrate sepals, and pointed petals arranged in a forked, loose panicle. Taste, bitter and acrid. Odour, none.

MOUNTAIN GRAPE. *Berberis Aquifolium*, Pursh.Fam. *Berberidaceæ*.

Syn.—Oregon Grape, Holly-leaved Berberry.

Part used—Root

Action—Alterative, tonic. Has been justly extolled as an alterative and tonic, as it improves digestion and absorption, and is useful in most diseases arising from impurity of blood. In syphilitic and scrofulous conditions and skin diseases of a scaly character it may be used with advantage. In chronic constipation it is generally used in conjunction with Cascara Sagrada.

Preparation—Fluid extract : Dose, 10–30 drops.

Distinctive character—The root occurs in pieces averaging about $\frac{3}{4}$ –1 inch in diameter, with a thin greyish yellowish brown bark, internally greenish yellow, and a hard yellowish wood with numerous medullary rays and very short, broken, white, waved lines between them. The rhizomatous part has a small pith. Taste, bitter. Odour, none.

MOUNTAIN LAUREL.*Kalmia latifolia*, Linn.Fam. *Ericaceæ*.

Syn.—Sheep Laurel, Lambkill, Spoonwood, Kalmia.

Part used—Leaves.

Action—Cardiac sedative, astringent, alterative. Large doses produce symptoms of narcotic poisoning, but moderate doses—10–30 grains—are valuable in all febrile complaints and inflammatory diseases. It is regarded as a most efficient remedy in syphilitic disorders, and useful in overcoming obstinate chronic irritation of the mucous membrane. It is also employed with benefit in active hæmorrhages, diarrhœa, and dysentery. The decoction of 1 ounce in 1 quart of water boiled down to a pint, is taken in tablespoonful doses.

Distinctive character—Leaves broadly lanceolate, about $2\frac{1}{2}$ inches long and $1\frac{1}{4}$ inch broad, leathery, but brittle when dry, with narrowly reflexed entire margins, the midrib prominent on both sides, but the lateral veins obscure. Taste, astringent and tea-like, slightly bitter. Odour, none.

MOUSEAR.*Hieracium Pilosella*, Linn.Fam. *Compositæ*.

Syn.—Pilosella.

Part used—Herb.

Action—Astringent, tonic, expectorant. A good remedy for whooping cough and in all affections of the lungs. The infusion of 1 ounce in 1 pint of boiling water is taken in wineglassful doses.

Preparation—Fluid extract: Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Leaves forming small rosettes on a creeping stem, elongate-lanceolate, about $1\frac{1}{2}$ inch long and $\frac{1}{4}$ – $\frac{1}{2}$ inch broad, greyish green above, with long, slender, scattered, composite, and serrate

MULBERRY.

Morus nigra, Linn.
Fam. *Moraceæ*.

Syn.—Black Mulberry.

Part used—Fruit.

Action—Nutritive, refrigerant, laxative. The fruit juice forms a grateful drink for convalescents from febrile diseases, as it checks the thirst and cools the blood. It was official in B.P. 1885 in the form of syrup. The bark of the tree is purgative and vermifuge. The leaves are used as food for silk-worms.

Preparation—Syr. Mon B.P.C. Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The fruit of the Black Mulberry is only obtainable in this country. The fruit differs from the blackberry in that it is the product of an agglomeration of flowers, and on each little portion of the fruit the four fleshy lobes of the calyx forming part of it can be detected.

MULLEIN.

Verbascum thapsus, Linn.
Fam. *Scrophulariaceæ*.

Syn.—Blanket Herb.

Parts used—Leaves, flowers, fruit.

Action—Demulcent, astringent, pectoral. Both leaves and flowers are useful in cases of pulmonary diseases, coughs, consumption, bleeding of the lungs and bowels. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses frequently.

Preparation—Fluid extract Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The basal leaves are lanceolate oblong, the upper more ovate and decurrent. The stem leaves are about 6–8 inches long and 2–2½ inches broad, densely coated with woolly hairs, which are stellately branched. The corolla, which is the part used, is yellow, cup-shaped, about 1 inch across with five unequal rounded lobes, to the base of which two nearly smooth and three hairy stamens are attached. The dried corollas turn brownish unless very carefully dried.

MUSKSEED.*Hibiscus Abelmoschus*, Linn.Fam. *Malvaceæ*.Syn.—*Abelmoschus moschatus*, Medic.

Part used—Seeds.

Action—Aromatic, insecticide. By the Arabs the seeds are used as a Coffee flavour. In India they are used as adulterants for Musk and in perfumes. It is also known as an insecticide, being dusted over woollens to protect them from moths, &c. For medicinal purposes the seeds are made into a paste with milk and employed as a remedy for itch.

Distinctive character—The seeds are reniform compressed, about $\frac{1}{8}$ inch in diameter, greyish brown, with numerous brown striæ which are concentric round the hilum. Taste, oily and musky. Odour, musky when rubbed

MUSTARD.*Brassica nigra*, Koch.*Brassica alba*, Linn.Fam. *Cruciferae*.

Syn.—*Sinapis alba*, Linn., *Sinapis nigra*, Linn., *Brassica sinapioides*, Roth, Mostaza.

Part used—Seeds.

Action—Irritant, stimulant, diuretic, emetic. Used chiefly as a poultice in acute local pains, pneumonia, bronchitis, and other diseases of the respiratory organs. The volatile oil is a powerful irritant, rubefacient, and vesicant, and combined with other remedies is an excellent application in rheumatic pains, colic, &c.

The black seeds yield by distillation, after maceration with water, a volatile oil—Ol. *Sinapis volatile*, B.P

Preparations—Mustard paper (leaves). Liniment.

Distinctive character—Black mustard seeds are between oval and spherical, dark reddish brown, about $\frac{1}{8}$ inch in diameter and $\frac{1}{10}$ grain in weight, more or less covered with a white pellicle. Triturated with water they form a yellowish emulsion, emitting the acrid vapour

of mustard and irritating the eyes and nose. Taste, at first bitterish, but quickly pungent. The powdered seeds are inodorous until moisture is absorbed, but the powder loses its power of producing pungency if long exposed to the air.

Mustard, White.—The seeds are globular, yellowish, about $\frac{1}{12}$ inch in diameter, and $\frac{1}{16}$ grain in weight. The inner seed coat contains a quantity of mucilage, and hence the seeds are used to absorb the last traces of moisture in bottles which are not chemically dry, by shaking the seeds up in them. The cotyledons of the seeds contain oil, and give a pungent, but inodorous, emulsion when rubbed with water. Taste, pungent. Odour, none.

MYROBALANS.

Terminalia Chebula, Retz.

Fam. *Combretaceæ*.

Syn.—Black Chebulic.

Dose: 20–60 grains, or 2–5 grains every hour.

The immature or black fruits of a large tree growing in Northern India form the official drug. If gathered later when they are the size of a walnut, they become brown in colour pointed at the ends and are called Chebulic Myrobalans and are largely used for Tannin. They contain a high percentage of Gallic and Tannic Acid.

Used as an astringent and, like Rhubarb, has both cathartic and astringent properties.

MYRRH.

Commiphora Molmol, Engl.

(And other species.) Fam. *Burseraceæ*.

Syn.—*Balsamodendron Myrrha*, Nees; *Commiphora Myrrha*, var. *Molmol*, Engl.

Part used.—Gum-resin. Collected in Somaliland.

Action.—Stimulant, tonic, healing. A valuable and deservedly popular medicine. The tincture is used in inflammatory sore throat, ulcers, bad legs, thrush, and

other complaints. Makes an excellent wash for ulcerated mouth, tongue, &c. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses.

Preparations—Powdered Myrrh : Dose, 5-15 grains. Tinct. Myrrh B.P. : Dose, $\frac{1}{2}$ -1 drachm. Tinct. Aloes et Myrrh B.P.C. : Dose, 1-2 drachms. Tinct. Myrrh Co. B.P.C. Tinct. Myrrh et Borac. B.P.C.

Distinctive character—This oleo-gum-resin occurs in various qualities, and varies in size from $\frac{1}{2}$ inch to 2 inches or more in diameter, some pieces containing gum in white streaks, and others hardly any, and some pieces more oil than others. The best for making emulsions or for use in pills are the pieces with white streaks. The oily pieces, with few streaks, are more useful for tincture. The gum left when the tincture is made with rectified spirit is closely allied to Acacia, possesses adhesive properties, and forms an excellent mucilage for sticking purposes.

MYRTLE.

Myrtus communis.

Fam. *Myrtaceæ.*

Action—An infusion or tincture of the leaves has given excellent results as an injection for prolapsus and leucorrhœa. 10-30 grains of the powdered leaves is said to check night sweats of phthisis and to be of use in all pulmonary disorders.

Description—An evergreen shrub. Leaves ovate, smooth, glossy, contain a volatile oil and Tannin. Leaves are said to make a good tea

NETTLE.

Urtica dioica, Linn.

Fam. *Urticacæ.*

Syn.—Stinging Nettle.

Parts used—Flowers, leaves, seeds.

Action—Diuretic, astrigent, tonic. The herb makes a nice botanic beer, and is also used as a medicine in nettle rash. The seeds are used in consumption. The

infusion of either herb or seed of 1 ounce to 1 pint of boiling water is taken in wineglassful doses.

Preparation—Fluid extract, herb : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stem 2–3 feet high, quadrangular, with opposite, stalked, heart-shaped or lanceolate-oval leaves, serrated at the margin. The flowers are small, green, and four-parted, the male flowers arranged in erect, and the female in reflexed, panicles longer than the leaf-stalks. Fruit one-seeded. When growing it is easily recognised by its yellow, creeping root, that of *Urtica urens*, which is only a foot high, and is usually a garden weed, being white and not creeping, and the inflorescence not so long as the leaf-stalks.

Chlorophyll is generally obtained from Nettles ; many tons are gathered yearly for that purpose.

NIGHT-BLOOMING CEREUS.

Cereus grandiflorus, Mill.

Fam. *Cactaceæ*.

Syn.—Sweet-scented Cactus, *Cactus grandiflorus*, Miller.

Parts used—Fresh plant.

Action—Cardiac stimulant and tonic, diuretic. It gives prompt relief in most cardiac diseases, such as palpitation, *angina pectoris*, cardiac neuralgia, &c. Also useful in prostatic diseases, irritable bladder, and congested kidneys. Prof. Locke recommends it for nervous menstrual headache.

Preparations—Ext. Cerei Liq. B.P.C. : Dose, 1–10 minims. Tinct. Cerei B.P.C. : Dose, 2–30 minims.

Distinctive character—The stem and flowers are usually sold crushed and preserved in spirit. The stems are, when fresh, fleshy, five to seven-angled and $\frac{1}{2}$ – $\frac{3}{4}$ inch in diameter, and the flowers 4–5 inches across. The

calyx consists of numerous linear, hairy, orange, segments, and the petals are oblong-lanceolate, white; the stamens numerous, and the stigma has many rays.

The small dried flowers of *Opuntia decumana*, Haw., which are of little or no use and are only about $1\frac{1}{2}$ inch in diameter, and other species of *Opuntia*, are sometimes sold as *Cereus grandiflorus*. A figure of the flower was published in the *Pharm. Journ.*, Aug. 1897, p. 165.

NIKKAR NUTS. *Guilandia Bonduë*, G. Bonducella.

Fam. *Leguminosæ*.

Syn.—Nichol Seeds.

Part used—Seeds.

Action—The seeds contain a bitter principle—little alkaloid, but nothing very definite. They appear to be largely used in India as an antiperiodic and tonic. Employed with success in intermittent fevers. In Jamaica the seeds are roasted, which removes in part the bitterness, and made into Coffee. This is taken twice daily in cases of diabetes. Some patients have derived benefit, but further investigation is required.

Description—The pods are covered with straight prickles and contain the hard polished yellow seeds about the size of an acorn. The trees grow in the savannas everywhere.

NUTMEG.

Myristica fragrans, Houtt.

Fam. *Myristicaceæ*.

Syn.—*Myristica officinalis*, Linn, *Nux Moschata*.

Part used—Seeds. Imported from Penang and West Indies. Oil.

Action—Carminative, stomachic. Useful in flatulency, nausea, and vomiting. Mostly employed as a flavouring for medical or culinary purposes.

Preparations—Powdered Nutmegs: Dose, 5-10 grains. Ol. Myrist. B.P.: Dose, 1-3 minims. Sp. Myrist. B.P.C.: Dose, 5-20 minims.

Distinctive character—Nutmegs vary in size and in shape, as well as in quality, and are sold according to size. The average size runs 60-100 to the pound, and are about $1\frac{1}{2}$ inch long and $1\frac{3}{4}$ inch in diameter. They should be variegated with brown and white internally, and cut with an oily surface. The outside shows, under a powerful lens, minute oblong or rounded black specks. The fragrant odour is characteristic. Long nutmegs about $1\frac{1}{2}$ inch long of the genuine kind are occasionally met with, and from the Papua nutmegs which are similar in size and shape, by the absence of black specks externally, and the acrid taste of the latter, which otherwise resemble true nutmegs. Bombay long nutmegs also occur in commerce, but these lack fragrance and are usually 2 inches long by rather more than $\frac{3}{4}$ inch broad.

NUX VOMICA.

Strychnos Nux vomica, Linn.

Fam. *Loganiaceæ*.

Syn.—Quaker Buttons, Poison Nut.

Part used—Seeds.

Action—Tonic, bitter, stimulant. Used as a general tonic, mostly in combination with other remedies, for neuralgia, dyspepsia, debility, impotence, and in chronic constipation, as it increases peristalsis. Should be given with great care.

Preparations—Ext. Nuc. Vom. Liq. B.P.: Dose, 1-3 minims. Ext. Nuc. Vom. Sicc. B.P.: Dose, $\frac{1}{4}$ -1 grain. Nux. Vom. Pulverat. B.P.: Dose, 1-4 grains. Tinct. Nuc. Vom. B.P.: Dose, 10-30 minims. Pil. Aloes et Nuc. Vom. B.P.C.: Dose, 1 pill.

Distinctive character—The seeds are of a light

OATS.*Avena sativa*, Linn.Fam. *Graminaceæ*.

Syn.—Groats.

Part used—Seeds.

Action—Nerve tonic, stimulant, antispasmodic. *Avena* forms an important restorative in nervous prostration and exhaustion after all febrile diseases, and as a tonic in spermatorrhœa, insomnia, &c. It seems to exert a very beneficial action upon the heart muscles and on the urinary organs, speedily relieving spasmodic conditions of bladder and ureter. It is mostly used in the form of a fluid extract.

Preparation—Fluid extract : Dose, 10–30 drops.

Distinctive character—The seeds with the husk removed are sold in two or more forms. Crushed or in coarse powder they are known as groats, and in fine or coarse powder as oatmeal. Like all other cornmeal it should be kept dry, or it undergoes alteration and acquires a bitter taste. The starch of the oat is quite characteristic, consisting of simple and compound grains, the former always containing some spindle or lemon-shaped grains, which rice starch never does.

OLIVE.*Olea europæa*, Linn.Fam. *Oleaceæ*.

Part used—Oil.

Action—Emollient, nutritive, aperient. Olive Oil (or Lucca Oil, Sweet Oil, Salad Oil, Provence Oil, Virgin Oil), apart from its use in the household, is a valuable remedy in bowel diseases generally. Being pleasant to the taste, it is often substituted for Castor Oil as a children's laxative, also as a remedy in habitual constipation and lead colic. It removes intestinal worms and in large doses dispels biliary concretions. Externally it forms part of a large number of embrocations, ointments, liniments, &c., used in bruises, burns, scalds, rheumatic and cutaneous affections. As an

inunction in teething children it is invaluable, keeping the bowels regular and acting as a tonic by absorption. The dose of the oil varies from 1 teaspoonful to 2 tablespoonfuls. The fruit, from which the oil is expressed, is a valuable article of food in countries where the tree grows.

Preparations—Emuls. Ol. Oliv. B.P.C.: Dose, $\frac{1}{4}$ –1 fluid ounce. Ext. Malt c Ol. Oliv. B.P.C.: Dose, 1–2 drachms. Lin. Calc. Hydrox. B.P.C. Ung. Aquosum B.P.

Distinctive character—Olive Oil is much adulterated. The purest or virgin oil, known as Provence or Virgin Oil, has usually a faint greenish tinge, and is more expensive. Ordinary Olive Oil often contains purified Cotton Seed Oil. The latter is a drying oil to a certain degree, and Olive Oil containing it usually forms a thin skin on the glass over which it has run. The taste of the oil is a good guide to purity. Anyone who compares it with the taste of a preserved olive will recognise it at once.

Olive Oil enters into the composition of many soaps. Sapo Durus B.P., known as Castile Soap or Hard Soap, is made from Olive Oil and Sodium Hydroxide. Sapo Mollis B.P., Soft Soap, is prepared from Olive Oil and Potassium Hydroxide. The former is used medicinally in pills and plasters, whereas the latter enters into the composition of liniments, cleansing solutions and rectal injections.

OLIVER BARK.

Cinnamomum Oliveri, Baill.

Fam. Lauraceæ.

Syn.—Black Sassafras, Australian Cinnamon.

Action—Stimulant and corrective. Dose, 10–30 grains.

Distinctive character—Flat strips, coarsely granular outer surface brown with white cork patches. Odour of sassafras and cinnamon. Tree indigenous to Eastern Australia.

ONION.

Allium Cepa, Linn.Fam. *Liliaceæ*.

Part used—Bulb.

Action—Diuretic, expectorant. Besides being used for culinary purposes, Onions often form an ingredient in domestic medication. Who has not heard of roasted Onion as a poultice for suppurating tumours or earache? The juice, made into a syrup, is beneficial as a cough medicine. Onions are macerated in Hollands gin, and the resulting tincture is serviceable in gravel and dropsical affections. The large or Portugal Onion when boiled forms a useful remedy for a cold. In the spring the head of the Onion is apt to decay and should be removed.

ORANGE, BITTER.

Citrus Aurantium, Linn.*subsp. amara*, Engl.Fam. *Rutaceæ*.

Syn.—Seville Orange, Bigarade Orange, *Citrus aurantium*, Linn., *Citrus Bigaradria*, Loisel, Naranja.

Parts used—Fruit rind, oil, flowers.

Action—Tonic, stomachic, carminative. Orange peel is mostly used as an agreeable flavour for bitter medicinal compounds and to allay a tendency to nausea. It can be used with most forms of medications, especially in infusions, decoctions, tinctures, and syrups.

Preparations—Tinct. Cinchon. Co. B.P. : Dose, 30–60 minims. Tinct. Gent. Co. B.P. : Dose, 30–60 minims. Tinct. Aurant. B.P. : Dose, 30–60 minims. Syr. Aurant. B.P. : Dose, 30–120 minims. Inf. Aurant. Co. Conc. B.P.C. : Dose, $\frac{1}{2}$ –1 drachm. Inf. Aurant. Co. Rec. B.P.C. : Dose, $\frac{1}{2}$ –1 fluid ounce. Inf. Aurant. Conc. B.P. : Dose, $\frac{1}{2}$ –1 drachm. Inf. Aurant. Rec. B.P. : Dose, $\frac{1}{2}$ –1 fluid ounce. Syr. Aromat. B.P.C. : Dose, $\frac{1}{2}$ –1 drachm. Ol. Aurant. (from peel) : Dose, $\frac{1}{2}$ –3 minims. Elix. Simp. B.P.C. : Dose, 1–2 drachms. Ext. Aurant. Liq. B.P.C. :



OAK
(See page 251)



OATS
(See page 252)



OSIER, English
(See page 257)



OX-EYE DAISY
(See page 258)

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100

ORRIS.

Iris Florentina, Linn.

(And other species) Fam. *Iridaceæ*.

Syn.—Florentine Orris, Orris Root.

Part used—Root. Mostly used, on account of its fragrance, in dusting powders, toilet powders, dentifrices, cachous, &c.

Distinctive character—The rhizome is sold in several forms. Florentine is white, irregular in shape, bearing small marks where the rootlets have been removed. The Verona root is usually somewhat compressed, and less suddenly tapering than the Florentine root; that from Morocco has the cortical portion not removed, and is of a dirty white colour. The Verona root is also sold trimmed for infants' use when teething. The rhizome has a violet odour.

OSIER, RED, AMERICAN. *Cornus sericea*, Linn.

Syn.—Rose Willow, Red Willow, Silky Cornel.

Parts used—Bark, rootbark.

Action—Astringent, bitter, tonic. Has been found of service in diarrhoea, dyspepsia, and in fevers. Is also recommended in dropsy. The infusion is useful in checking vomiting due to pregnancy or disease of the womb.

Distinctive character—Bark in thin irregular pieces or short quills, purplish externally, somewhat warty, inner surface cinnamon brown, even, and finely striated. Fracture even, scarcely fibrous. Taste, astringent, bitter. Odour, slight.

The English Red Osier (*Salix rubra*) is very seldom used in medicine.

OX-EYE DAISY.

Chrysanthemum Leucanthemum, Linn.Fam. *Compositæ*.

Syn.—White Daisy, Field Daisy, Moon Daisy, Maudlin Daisy, Great Ox-Eye, White Weed, Goldens, Horsegowan, Marguerite, *Leucanthemum vulgare*, Lam.

Part used—Herb.

Action—Antispasmodic, diuretic, tonic. Ox-Eye Daisy has been employed successfully in whooping cough, asthma, and nervous excitability. As a tonic it acts similar to Chamomile, and has been recommended in nightsweats. The decoction—of usual strength—is taken in wineglassful to teacupful doses three to four times a day. Externally it is serviceable as an injection in leucorrhœa, and as a lotion for ulcers, wounds, &c. Large doses produce emesis.

Distinctive character—The leaf stem is angular, 1-2 feet long, bearing stalked, serrate, spatulate leaves in the lower half, with a serrate clasping base, and serrate upper leaves, which are oblong and sessile. The yellow-centred white flowerheads have an involucre of green bracts with thin, black membranous edges. The receptacle is hemispherical and without paleæ. The fruit has no pappus. Taste, bitter and tingling. Odour, faintly valerianic.

PAPAW.

Carica Papaya, Linn.Fam. *Papayacæ*.

Syn.—Pawpaw, Melon Tree, Mamæiro, *Papaya vulgaris*, D.C., Fruta de Bomba.

Part used—Papain, prepared from juice of unripe fruit.

Action—Digestive. "Papain," a white powder, is administered generally in all digestive disorders where albuminoid substances pass away undigested. It is

generally used in combination with an alkali, such as bicarbonate of soda, and acts best in an alkaline medium. A solution of the ferment is reputed to dissolve the false membranes in diphtheria and croup, when applied frequently.

Preparations—Papain. Dose, 2-10 grains. Elix. Papain B.P.C.: Dose, $\frac{1}{2}$ -1 drachm. Glyc. Papain B.P.C.: Dose, $\frac{1}{2}$ -1 drachm. Liq. Papain et Iridin B.P.C.: Dose, $\frac{1}{2}$ -1 drachm.

Distinctive character—The Papaw is a handsome tropical tree with a large crown of spreading palmate leaves, at the base of which the fruits are produced on the female tree. The fruit is the size of a small melon, and when ripe is of a greenish yellow or even orange colour. The flesh consists of a yellow sweet pulp with numerous black seeds. The most remarkable characteristic of the Papaw is the presence of an active enzyme called Papain, which occurs in the fruit seeds and leaves. Five grains are said to digest a pint of milk in thirty minutes.

"Papain" is a white powder soluble in glycerine, and is prepared from the juice of the Papaw tree. Another preparation of a brownish white tint and granular in character consists of the dried juice of the fruit.

PAWPAW SEED, NORTH AMERICAN.

Asimina triloba, Dur.

Fam. Anonaceæ.

Distinctive character—Seeds flat, oblong-oval, with the greyish hilum at one end, brown and slightly polished, with darker brown pinnate lines on the surface, about 1 inch long and $\frac{1}{2}$ - $\frac{3}{4}$ inch broad and $\frac{1}{8}$ inch thick. The seed has ruminated, horny albumen, and exudes oil when pressed by the nail. Taste and odour, resinous

PARAGUAY TEA. *Ilex paraguensis*, Hook.(And other species.) Fam. *Aquifoliaceæ*.**Syn.**—Maté, Yerba Maté, Jesuit's Tea, Brazil Tea.**Part used**—Leaves.

Action—Stimulant, diuretic. The peculiar properties it possesses are chiefly due to Caffeine. Its action resembles such stimulants as Tea, Coffee, and Coca, although different from either. Fifty million people use it daily in South America in place of ordinary tea. If taken in large doses it acts as a purgative and antiscorbutic. Recommended for rheumatism and gout.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The leaves are sold in two forms. The Brazilian is sold in the form of roughly powdered leaves and stalks. The Paraguay kind, which is considered the best, consists of broken leaves only. The leaves are coriaceous in texture, but are rarely perfect enough to show their form. The characteristic features under the microscope are the thick striated cuticle, the straight-walled polygonal cells of the epidermis, and the stomata overhung by three or four contiguous cells. Taste, bitterish. Flavour, recalling those of tea, lime flowers, and orange.

PAREIRA.*Chondrodendron tomentosum*, Ruiz. & P.Fam. *Menispermaceæ*.**Syn.**—*Pareira brava*.**Part used**—Root.

Action—Tonic, diuretic, aperient. Used as a stimulant to kidneys, relieving urinary irritation, and in chronic inflammation of bladder and various urinary diseases. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses as required.

Preparation—Fluid extract : Dose, $\frac{1}{4}$ –2 drachms.

Distinctive character—The root occurs in tortuous woody pieces of varying length, and about 1-2 inches in diameter, black externally, longitudinally furrowed, with transverse ridges and some constrictions, and internally greyish yellow or brownish. The transverse section shows three or four concentric rings, usually about $\frac{1}{2}$ inch in diameter and each separated from the contiguous one by a wavy line of softer tissue. The medullary rays are broad, sometimes broader than the woody wedges. The taste is bitter and slightly sweet, but the root is inodorous. The stem, which often forms more than one-third of the imported drug, is similar in structure, but differs in the outer surface, being grey, with numerous round, warty lenticels. Substitutes often appear in the market, but all of them have narrower rings and thinner medullary rays, and in some kinds no bitterness is present, and in all except the African false Pareira the outer surface is not black. The African kind is recognisable by the narrow rings and thinner medullary rays.

PARSLEY. *Carum petroselinum*, Benth. & Hook.

Fam. *Umbelliferae*.

Syn.—*Apium petroselinum*, Linn., *Petroselinum sativum*, Hoffm.

Parts used—Root, seeds.

Action—Aperient, diuretic, emmenagogue. Is chiefly used on account of its diuretic properties. In gravel, stone, congestion of kidneys, and in dropsy it will be found of great service. The seeds contain Apiol, which is considered a safe and efficient emmenagogue, and is used in amenorrhœa and dysmenorrhœa.

Preparations—Fluid extract, root : Dose, $\frac{1}{2}$ –1 drachm. Fluid extract, seeds : Dose, $\frac{1}{2}$ –1 drachm. Apiol : Dose, 3–10 minims. Oil : Dose, 3–5 minims.

PARSLEY PIERT. *Alchemilla arvensis*, Scop.
Fam. *Rosaceæ*.

Syn.—Parsley Breakstone.

Part used—Herb.

Action—Demulcent, diuretic. Used in all cases of gravel, kidney, and bladder complaints. It acts directly on the parts affected, and will be found exceedingly valuable even in seemingly incurable cases. Several London doctors prescribe this remedy regularly. The infusion is taken in teacupful doses three times daily.

Preparation—Fluid extract : Dose, 1 drachm.

Distinctive character—This small herb varies from 3–5 inches in height, has small palmate leaves below, about $\frac{1}{2}$ inch in diameter, the upper leaves being trifid and wedge-shaped at the base. The greenish flowers in axillary tufts are very small. The whole plant is hairy, with slender scattered hairs. Taste, astringent. Odour, none.

PASSION FLOWER. *Passiflora incarnata*, Linn.
Fam. *Passifloraceæ*.

Syn.—Maypops.

Parts used—Plant and leaves.

Action—Antispasmodic, sedative, narcotic. Used as a rest-producing remedy in nervous, irritative and neuralgic pains with debility, and also in nervous headache, hysteria, spasms, and convulsions.

Preparation—Fluid extract : Dose, 10–20 drops.

PATCHOULI. *Pogostemon Patchouli*, Pell.
Fam. *Labiatae*.

Uses—For perfumery, sachets, &c.

Distinctive character—Patchouli leaves, as imported, are usually of dark brown colour, crumpled and often mixed with other leaves. The genuine leaves,



PARSLEY
(See page 261)



PARSLEY PIERT
(See page 262)



PELLITORY-of-the-WALL
(See page 265)



PENNYROYAL
(See page 266)

when soaked out in water, are seen to be ovate in form; they attain to 4 inches long and $5\frac{1}{2}$ inches broad, but younger leaves are only half that size, the margin is lobed, with irregular crenate-serrate teeth, the lobes being obtuse, and the base of the leaf not toothed. The hairs are simple and usually four-celled. Taste, aromatic. Odour, strong and persistent.

PEACH.*Prunus Persica*, Stokes.Fam. *Rosaceæ*.

Syn.—*Amygdalus Persica*, Linn., *Persica vulgaris*, Null.

Parts used—Bark, leaves, oil expressed from seeds.

Action—Sedative, diuretic, expectorant. For irritation and congestion of the gastric surfaces this has been found almost a specific. It is also used in coughs, whooping cough and chronic bronchitis. An infusion of $\frac{1}{2}$ ounce of bark or 1 ounce of leaves to 1 pint of boiling water is taken in doses from a teaspoonful to a wineglassful as required.

Distinctive character—Leaves elliptical, about 4 inches long and $1\frac{1}{2}$ inch broad, tapering to a sharp point above, with a short leafstalk about $\frac{1}{2}$ inch long, the margins minutely serrate with a gland at the base on each side, replacing the lowest teeth of the leaf, under surface pale green. Bark in small, thin, pale brown fragments, rarely exceeding $1\frac{1}{2}$ inch in length and $\frac{1}{4}$ inch in thickness, having a smooth dark brown epidermis, which readily exfoliates, and an inner surface with a faint network of fibres. Fracture short, but fibrous. Taste, bitter and very astringent. Flavour, slight.

Persic Oil is expressed from the seeds of the *P. Persica* and *P. Armeniaca* (Apricot). It is largely used in the manufacture of toilet preparations and as a substitute for almond oil.

PELLITORY.*Anacyclus Pyrethrum*, D.C.Fam. *Compositæ*.

Syn.—Pellitory Root, Spanish Pellitory, Spanish Chamomile, *Anthemis Pyrethrum*, Linn., *Matricaria Pyrethrum*, Baill.

Part used—Root.

Action—Local irritant, rubefacient. It is an excellent remedy for toothache.

Preparation—Tincture B.P.C.

Distinctive character—In dark brown cylindrical pieces, about 2-3 inches long and $\frac{1}{4}$ inch broad, tapering slightly to either end and often having at the crown a tuft of soft woolly hairs furrowed longitudinally, with a short fracture and a radiate structure, with dark resin cells in the bark. Taste, slowly pungent and acid, causing a flow of saliva. Odour, characteristic.

PELLITORY-OF-THE-WALL.*Parietaria officinalis*, Linn.Fam. *Urticaceæ*.

Part used—Herb.

Action—Laxative, diuretic. A most efficacious remedy in stone, gravel, dropsy, and suppression of urine. Usually combined with Wild Carrot and Parsley Piert. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses.

Preparation—Fluid extract : Dose, 1 drachm.

Distinctive character—Herb about 1-2 feet high, with brittle, reddish stems and stalked, lanceolate leaves 1-2 inches long and $\frac{1}{2}$ -1 inch broad, with slender stalks about $\frac{1}{2}$ inch long. Flowers small, green, sessile, axillary. The stems and veins of the under surface of the leaves are furnished with short soft hairs, the upper surface of the leaves is nearly smooth, with sunken veins. Taste, insipid. Odour, none.

PENNYROYAL.*Mentha Pulegium*, Linn.Fam. *Labiatae*.

Syn.—European Pennyroyal.

Parts used—Herb, oil.

Action—Carminative, diaphoretic, stimulant, emmenagogue. It is principally used as a remedy in obstructed menstruation, for which it forms a reliable cure, especially where a sudden chill or cold is the cause. It may also be employed with advantage in cases of spasms, hysteria, flatulence, and sickness, as it is very warming and grateful to the stomach. The infusion of 1 ounce of herb to 1 pint of boiling water is taken warm in teacupful doses, frequently repeated. The oil is an excellent preventative application against mosquito and gnat bites.

Preparations—Oil: Dose, 1–3 minims. Liquid extract: Dose, $\frac{1}{4}$ –1 drachm. Sp. Puleg. B.P.C.: Dose, 10–20 minims.

Distinctive character—Herb 8–12 inches high. Stems bluntly quadrangular. Leaves opposite, shortly stalked, oblong-oval, obtuse, about 1–1 $\frac{1}{2}$ inch long, and $\frac{1}{2}$ inch broad, faintly serrate, nearly smooth, or hairy. Taste and odour, mint-like, but characteristic.

American or Mock Pennyroyal is the dried leaves and flowering tops of *Hedeoma pulegioides*, a plant with similar properties to the above but quite distinct in appearance.

PEONY.*Pæonia officinalis*, Linn.Fam. *Ranunculaceæ*.

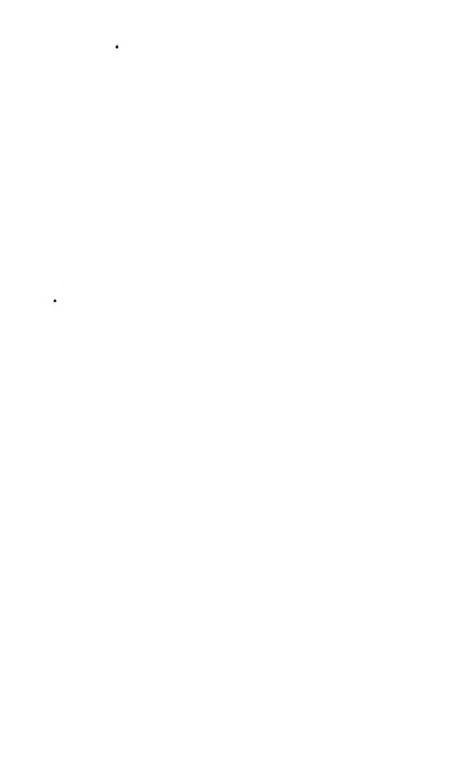
Syn.—Pæonia, Common Peony, Piney.

Part used—Root.

Action—Antispasmodic, tonic. Successfully employed in convulsive and spasmodic nervous affections



PEPPERMINT
Mentha Piperita



such as chorea, epilepsy, spasms, &c. The infusion of 1 ounce powdered root in 1 pint of boiling water is taken in wineglassful to teacupful doses three to four times daily.

Distinctive character—In scraped, spindle-shaped pieces, averaging 3 inches long and $\frac{1}{4}$ – $\frac{1}{2}$ inch in diameter, pinkish grey or dirty white, strongly furrowed, and shrunk longitudinally. The transverse section is starchy, radiate, with the medullary rays more or less tinged with purple. Taste, sweet then bitter. Inodorous.

PEPPER.

Piper nigrum, Linn.

Fam. *Piperaceæ*.

Syn.—Black Pepper

Part used—Unripe berries Imported from Singapore.

Action—Carminative, stimulant Besides its use as a condiment, Pepper is a valuable gastro-intestinal stimulant, of great service in flatulence, congestive chills, and indigestion It has been recommended in inter-mittent fevers, and forms an ingredient in "Asiatic Pills" The powdered Peppercorns may be taken in doses of 3-15 grains.

Preparations—Confection of Pepper B.P.C. Dose, 1-2 drachms Oleoresin Dose, $\frac{1}{2}$ grain.

Distinctive character—Black pepper is the dried, unripe fruit, externally black and wrinkled, $\frac{1}{2}$ inch in diameter, spherical, containing only one seed, which is horny and grey and starchy internally Taste, very pungent Odour, characteristic

White Pepper The berries are collected when nearly ripe, the outer pericarp is removed by soaking in water and rubbing

Long Pepper is the dried unripe fruit of *Piper chaba*, exported from Java

PEPPERMINT.*Mentha piperita*, Linn.Fam. *Labiatae*.

Syn.—Brandy Mint, Curled Mint, Balm Mint.

Parts used—Herb, oil.

Action—Stimulant, stomachic, carminative. Used for allaying nausea, flatulence, sickness, vomiting, and as an infants' cordial. Generally combined with other medicines when its stomachic effects are required. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses.

Preparations—Powdered herb: Dose, $\frac{1}{2}$ –1 drachm. Aq. Menth. Pip. Conc. B.P.: Dose, 5–15 minims. Aq. Menth. Pip. Dest. B.P.: Dose, $\frac{1}{2}$ –1 fluid ounce. Oil: Dose, 1–3 minims. Liquid extract: Dose, $\frac{1}{2}$ –1 drachm. Emuls. Menth. Pip. B.P.C.: Dose, 5–20 minims. Sp. Menth. Pip. B.C.: Dose, 5–30 minims. Syr. Menth. Pip. B.P.C.: Dose, $\frac{1}{2}$ –2 drachms.

Distinctive character—Stem usually purplish, 2–4 feet high, quadrangular, leaves stalked, 2–3 inches long and $\frac{3}{4}$ –1 $\frac{1}{2}$ inch broad, serrate, slightly but not visibly hairy. Taste and odour, characteristic.

Hairy Mint—downy leaves (*Mentha aquatica*). Corn Mint—rings of flowers around stem with pair of leaves below each ring (*Mentha arvensis*).

Menthol is obtained mainly from *M. arvensis* var. *piperascens*, in Japan, being separated from the oil by freezing. The dementholised Japanese oil is then sold as a cheap grade of oil very largely used for flavouring.

PERIWINKLE.*Vinca major*, Linn.Fam. *Apocynaceae*.

Syn.—Greater Periwinkle.

Part used—Herb.

Action—Astringent, tonic. It is reputed to be useful in menorrhagia and hæmorrhages generally.

Distinctive character—Stems cylindrical smooth,



PEPPERMINT

(See page 268)



PERIWINKLE

(See page 263)



PILEWORT

(See page 271)



PIMPERNEL, SCARLET

(See page 272)

leaves opposite, shining, at intervals of 2-3 inches, stalked, ovate, entire at the margins, $1\frac{1}{2}$ -3 inches long and 1-2 inches broad, the lower leaves largest. Flowers blue, rotate and large as a florin. Taste, bitterish, slightly acrid. Odour, none.

Vinca rosea, a fairly common pinkish white-flowered plant growing in South Africa, has been used by the natives for many years as a cure for diabetes. It is said to be more efficacious than Insulin. A registration officer in Durban was declared cured after two months' treatment, and considerable notice appeared in the South African and London Press as to its virtues.

PERUVIAN BALSAM.

Myroxylon Pereiræ, Klotsch.

Fam. *Leguminosæ*.

Syn.—Balsam of Peru, *Toluisera Pereiræ*, Baill.

Part used—Balsam.

Action—Stimulating, expectorant. Useful in all chronic mucous affections, catarrh, gonorrhœa, leucorrhœa, diarrhœa, dysentery. Externally used in ulcers, wounds, ringworm, eczema, and other cutaneous affections. Dose, 5-15 minims.

Distinctive character—A black oily fluid of sp. gr. 1.15-1.16, and a sweet balsamic odour. The balsam is liable to adulteration, but tests to ascertain its purity are given in the British Pharmacopœia.

The balsam exudes from the tree after the bark has been beaten and scorched. This is soaked off by rags and boiled in water.

PICHI. *Fabiana Imbricata*, Ruiz. and Pavon.

Fam. *Solanaceæ*.

Parts used—Leaves, twigs.

Action—Diuretic, tonic, hepatic, stimulant. It favourably influences digestion in dyspepsia and jaundice, acting upon the stomach and liver. As a diuretic

it is of value in catarrhal and functional diseases of the kidneys. The infusion of 1 ounce in 1 pint of boiling water is taken in wineglassful doses every four hours.

Preparation—Fluid extract: Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The drug consists of stems irregularly branched with erect twigs covered with closely-imbricated heath-like leaves, which are fleshy, obtuse, and keeled with a prominent midrib beneath. The stem bears short glandular hairs and is marked with spirally-arranged paler scars where the twigs have fallen. Flowers, when present, white, tubular, constricted at the throat. Taste, bitterish. Odour, faint but agreeable.

PILEWORT.

Ranunculus Ficaria, Linn.

Fam. *Ranunculaceæ*.

Syn.—Small Celandine, Lesser Celandine.

Part used—Herb.

Action—Astringent. As its name denotes, it is chiefly used for piles, for which it is almost a specific. Internally the infusion of 1 ounce in 1 pint of boiling water is taken in wineglassful doses. Generally this is sufficient to cure most cases. Sir James Sawyer, M.D., used the entire herb, macerated in boiling lard for 24 hours at a temperature of 100° F., as an ointment for piles with prosperous results. Applied locally twice daily.

The B.P.C. also contains a formula for Pilewort Ointment.

Distinctive character—Leaves mostly radical, with

about 1 inch in diameter, petals yellow, usually eight, sepals three. Root of several fleshy knobs, oblong-rounded or club-shaped, $\frac{1}{4}$ –1 inch long, $\frac{1}{8}$ inch broad. Taste, acid. Odour, none.

PIMPERNEL, SCARLET.*Anagallis arvensis*, Linn.Fam. *Primulaceæ*.

Syn.—Red Pimpernel, Shepherd's Barometer, Poor Man's Weatherglass.

Part used—Leaves.

Action—Diuretic, diaphoretic, expectorant. This plant possesses very active properties, although its virtues are not fully known. For this reason caution should be exercised in its use for dropsy, rheumatic affections, hepatic and renal complaints. The fresh leaves are made into a tincture—10 ounces to 1 pint of diluted alcohol—the dose of which is from 1–5 drops. The powder of the dry leaves is given in 15–60 grain doses.

Distinctive character—Stem weak, procumbent or ascending, leaves opposite, about $\frac{1}{2}$ inch long and $\frac{3}{8}$ inch broad, ovate, sessile, with entire margins, and black dots on the under surface. Flowers scarlet, corolla rotate. Fruit one-celled and globular, splitting open horizontally. Taste, acrid, mucilaginous. Said to be poisonous. The flowers are said to never open on a rainy day and close up their petals long before a shower is coming. If they be spread abroad, fair weather.

PINE OILS.

Siberian Pine Oil, Ol. Abietis B.P., distilled from *Abies sibirica*. Fam. *Coniferæ*.

Pumilio Pine Oil, Ol. Pini Pumilionis B.P.C., distilled from *Pinus Pumilio*. Fam. *Pinaceæ*.

Sylvestris Pine Oil, Ol. Pini Sylvestris, distilled from various conifers.

Action—All the above oils are used largely as inhalations for bronchitis and laryngitis. Externally they may all be used as rubefacients. The Siberian Pine Oil is preferred because of its more pleasant aroma.

Preparations—All made with Pumilio Oil: Elix. Diamorph. et Pini Co. B.P.C.; Dose, $\frac{1}{2}$ –1 drachm. Pastill. Diamorph. et Pini Co. B.P.C. Syr. Pini B.P.C.; Dose, $\frac{1}{2}$ –1 drachm.

PINE, WHITE.*Pinus Strobis*, Linn.**Part used**—Bark.Fam. *Pinaceæ*.

Action—Expectorant, diuretic, demulcent. Owing to its balsamic properties it is used for the relief of coughs, colds, and chest diseases generally. It seems also to exert a favourable influence upon the urinary apparatus. The compound syrup is the popular form of administration, and is made from Wild Cherry, Bloodroot, Balm of Gilead, &c.

Preparations—Ext. Pini Alb. Liq. B.P.C. . Dose, $\frac{1}{2}$ –1 drachm. Syr. Pini Alb. Co B.P.C. . Dose, 1–2 drachms.

Distinctive character—The inner bark, which is the part used, occurs in pieces about $\frac{1}{4}$ inch thick, 2 or more inches in width, and 5 or 6 inches long, of a bright buff colour on the inner surface, smooth and finely striated, having on the outer surface numerous scattered, small, round oil receptacles. Fracture pale buff, tough, with short fibrous layers. Taste, mucilaginous, astringent. Odour, slight.

PINKROOT.*Spigelia marilandica*, LinnFam. *Loganiaceæ*.

Syn.—Wormgrass, Carolina Pink, Maryland Pink, Indian Pink.

Parts used—Whole plant, root

Action—In general use in U.S.A. as a vermifuge for children and adults, and considered a certain and powerful remedy. For children an infusion (1 ounce to 1 pint) is given, sweetened, in tablespoonful doses morning and evening. The dose should be increased according to age, that for an adult being a teacupful. Its effects are more certain if a purgative, such as Senna, is added.

Preparations—Powdered plant or root : For children, four years old, 10–20 grains ; adults, 1–2 drachms, repeated for a few days morning and evening. Fluid extract : $\frac{1}{4}$ –1 drachm.

Distinctive character—The whole herb is usually sold in this country under the name of Indian Pinkroot and is preferable, because it is easier to distinguish the root with the herb attached than the root alone, which is sometimes adulterated. The rhizome somewhat resembles that of Serpentry, but is darker in colour and is not aromatic. It is about $\frac{2}{10}$ inch in diameter, with cup-shaped scars on the upper surface and numerous rootlets below. The large cells of the middle bark of the roots show fine spiral markings.

PINUS BARK.

Tsuga canadensis, Carr.

Fam. *Pinaceæ*.

Syn.—Hemlock Spruce, Hemlock Bark, *Pinus canadensis*, Linn., *Abies canadensis*, Michx.

Part used—Bark.

Action—Astringent, tonic. Used as an astringent injection in female complaints, such as leucorrhœa, falling of the womb, &c., in the shape of an infusion of 2 ounces of crushed bark to 1 pint of water, or the fluid extract may be diluted with four times its weight of water and so used. The bark forms an ingredient in Composition Powder.

Preparation—Ext. Pini Canad. Liq. B.P.C. : Dose, $\frac{1}{4}$ –1 drachm.

Distinctive character—The bark occurs in small pieces 1 inch or more long and $\frac{1}{2}$ –1 inch broad and $\frac{1}{4}$ inch thick, with a madder red outer corky layer, and an inner fibrous layer. Fracture rough, shortly fibrous, showing groups of whitish stone cells. Taste, astringent, slightly turpentiney. Odour, slightly terebinthinate.

Canada Balsam is obtained by incision from the Balsam Fir and Hemlock Spruce.



LESSER CELANDINE

PILEWORT



PIPSISSIWA. *Chimaphila umbellata*, Nutt.
Fam. *Pyrolaceæ*.

Syn.—Prince's Pine, Ground Holly.

Part used—Leaves.

Action—Astringent, alterative, diuretic, tonic. Its alterative properties make it very useful in long-standing rheumatic and kidney affections. It is especially valuable in scrofulous debility. The infusion of 1 ounce in 1 pint of boiling water is taken in doses of a wineglassful to a teacupful as required.

Preparations—Fluid extract: Dose, $\frac{1}{2}$ –1 drachm. Chimaphilin: Dose, 1–3 grains.

Distinctive character—Leaves leathery, oblanceolate, with a rounded apex, about $1\frac{1}{2}$ inch long and $\frac{1}{2}$ inch broad, distantly serrate, except towards the base, upper surface minutely wrinkled, paler beneath, usually mixed with slender, reddish brown, woody stems.

PITCHER PLANT. *Sarracenia purpurea*, Linn.
Fam. *Sarraceniatæ*.

Syn.—Fly Trap, Water Cup, Saddleplant.

Parts used—Root, leaves.

Action—Stomachic, diuretic, laxative. Useful in derangements of stomach, liver, and kidneys, such as constipation, dyspepsia, menstrual complaints, &c. An infusion of 1 ounce to 1 pint of water is taken in doses of a tablespoonful to a wineglassful as may be required. Has lately achieved a great reputation as a prophylactic against and a cure for small-pox.

Preparations—Powdered root: Dose, 10–30 grains. Fluid extract: Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The pitchers are 6–8 inches or more long, and are formed from the leafstalks and stipules, the latter forming a sharp wing on the inner side, the leaf-blade forming a roundish, heart-shaped hood. The taste is bitter and somewhat astringent. Odour, none.

PLANTAIN.*Plantago major*, Linn.Fam. *Plantaginaceæ*.

Syn.—Ripple Grass, Waybread.

Part used—Leaves.

Action—Cooling, alterative, diuretic. The fresh leaves rubbed on parts of the body stung by insects, nettles, &c., will afford relief and will stay bleeding of minor wounds. Useful in diarrhoea, piles, &c. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Leaves ovate, blunt, abruptly contracted at the base, with a long, broad-channelled petiole. The blade is 4–8 inches long and 3–6 inches broad, with five to eleven strong fibrous ribs; the margin is sometimes entire and sometimes coarsely and unequally dentate-serrate. The inflorescence is a dense spike of four-parted flowers, with purple anthers and about two to four seeds in each cell of the fruit. Taste, astringent. Odour, none.

PLEURISY ROOT.*Asclepias tuberosa*, Linn.Fam. *Asclepiadaceæ*.

Syn.—Butterfly Weed, Swallowwort, Wind Root, Tuber Root.

Part used—Root.

Action—Antispasmodic, diaphoretic, expectorant, tonic. Is also mildly cathartic and carminative. As its name implies, it is of great use in pleurisy, in which disease it mitigates the pain and relieves the difficulty of breathing. It is valuable in all chest complaints and possesses a specific action on the lungs, assisting expectoration, subduing inflammation, and exerting a general mild tonic effect on the system. Recommended especially in pulmonic catarrh. A very useful medicine may be made as follows: Essence of Composition

Powder, 1 ounce ; Fluid extract Pleurisy Root, 1 ounce ; mix and take a teaspoonful three or four times daily in warm sweetened water.

Preparations—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm. Asclepin : Dose, 1–4 grains The diaphoretic action may be obtained by taking a teacupful of warm infusion (1 in 30) every hour.

Distinctive character—Rootstock with a knotty crown, slightly annulate. Root longitudinally wrinkled, buff brown externally, whitish internally. Fracture uneven, tough, that of the bark short, brittle. Taste, bitterish, somewhat acrid.

POISON OAK (Poison). *Rhus Toxicodendron*, Linn.
Fam. *Anacardiaceæ*.

Syn.—Poison Ivy, Poison Vine.

Part used—Leaves.

Action—Stimulant, narcotic, irritant. Has been used with success in treatment of obstinate skin diseases, and is, in small doses, an excellent sedative to the nervous system. Valuable in acute rheumatism, articular stiffness, &c.

Preparation—Fluid extract . Dose, 5–30 drops.

Distinctive character—Leaves trifoliate, the terminal leaflet with a longer stalk, the lateral nearly sessile, about 4 inches long, obliquely ovate, entire or sometimes notched, downy beneath, papery and brittle when dry, sometimes with black spots of exuded juice, turned black on drying. Taste, acrid, somewhat astringent. Odour, none.

POKE ROOT. *Phytolacca decandra*, Linn.
Fam. *Phytolaccaceæ*.

Syn.—Pigeon Berry, Garget

Parts used—Root, berries.

Action—Emetic, cathartic, alterative. Poke Root is

considered a valuable remedy in dyspepsia, but is mostly used in syphilitic and chronic rheumatism. It also finds use in the treatment of ulcers, ringworm, scabies, granular conjunctivitis, and dysmenorrhœa. The berries are milder in action.

Preparations—Fluid extract, berries: Dose, $\frac{1}{2}$ –1 drachm. Fluid extract, root: Dose, $\frac{1}{4}$ – $\frac{1}{2}$ drachm. Phytolaccin: Dose, 1–3 grains. Powdered root: Dose, 1–5 grains.

Distinctive character—The root is usually sold in transverse slices, or in pieces split longitudinally, but in either case the characteristic concentric rings are easily seen. The outer surface is brownish grey and wrinkled, the inner whitish and hard, but not woody. Fracture fibrous. Taste, sweetish and acrid. Inodorous. The berries are depressed-globular, purplish black and fleshy, about $\frac{1}{2}$ inch in diameter and composed of 10 carpels, each containing one lens-shaped seed. Taste, sweetish. Inodorous.

POLYPODY ROOT. *Polypodium vulgare*, Linn.
Fam. Filices.

Syn.—Rock Polypody, Brake Root, Rockbrake, Polypodi of the Oak.

Parts used—Root, leaves.

Action—Alterative, tonic, pectoral, expectorant. It is much used in coughs, consumption, and chest diseases, for which complaints it is considered highly valuable. As a tonic in dyspepsia and loss of appetite, and as an alterative in skin diseases it will be found certain and safe. Its action is peculiar in that it occasionally produces a rash of red spots, but this disappears in a short time and causes no inconvenience. The infusion of $\frac{1}{2}$ ounce of crushed root to 1 pint of boiling water and sweetened is taken in teacupful doses frequently.

Preparation—Fluid extract, root: Dose, 1 drachm.

Distinctive character—The slender rhizome, about $\frac{1}{4}$ inch in diameter and 2-3 inches long, is dark brown externally and striated longitudinally, knotty, with cup-shaped leaf bases on the upper side at intervals of about $\frac{1}{4}$ inch, the rootlets of the under surface being usually removed. Transverse section horny, greenish, or brown if old, with an irregular circle of minute woody plates near the circumference. Taste, very sweet, faintly acrid. Odour, none. Probably contains Glycyrrhizin, the sweet principle of Liquorice.

POMEGRANATE.*Punica Granatum*, Linn.Fam. *Punicaceæ*.**Parts used**—Rootbark, fruitbark.

Action—Tæniifuge. This is one of the oldest of drugs, and is considered a specific for removal of tapeworm. It is mostly administered in a decoction prepared as follows: 8 ounces of coarse bark of the root is put into a vessel and 3 pints of cold water poured upon it. Boil for 1 hour, strain, and boil down until it measures a pint. After preparing the patient, give the decoction in doses of 4 ounces (teacupful), followed by a purgative. If necessary repeat in four hours.

Preparations—Pomegranate fruitbark: Dose, 1-2 drachms. Fluid extract, rootbark: Dose, $\frac{1}{2}$ -2 drachms. Alkaloid Pelletierine: Dose, 5-20 grains. Decoction: Dose, $\frac{1}{2}$ -2 ounces.

Distinctive character—The bark in commerce is chiefly that of the stem. It occurs in pieces 3-4 inches long, flat or slightly quilled. In the root the outer surface is yellowish grey, often furrowed, with bands of cork sometimes united to form broad flat scales. The inner surface is smooth or finely striated, greyish yellow, and has often strips of the tough whitish wood attached to it. The stem bark is usually less corky, and has

traces of lichens upon it. Fracture short and granular. Taste, astringent. Odour, none.

The rind of the fruit is usually in irregular concave fragments, $\frac{1}{8}$ — $\frac{1}{6}$ inch thick, brownish red externally, and dull yellowish on the inner surface, with depressions left by the seeds. The toothed tubular calyx is present on some of the pieces. Taste, astringent. Odour, none.

POPLAR.

Populus tremuloides, Michx.

Fam. *Salicaceæ*.

Syn.—Quaking Aspen, White Poplar.

Part used—Bark.

Action—Tonic, diuretic, stimulant. This remedy deservedly holds a high position as a universal tonic. It takes the place of Peruvian Bark and Quinine, and has none of the drawbacks which interfere with the continued administration of the last-named drug. For all cases of debility, indigestion, faintness, hysteria, &c., it may be freely given. It is also used in gonorrhœa, gleet, and other urinary complaints. The powdered bark is generally given in combination with other remedies.

Preparations — Fluid extract: Dose, 1 drachm. Populin: Dose, 1–4 grains.

Distinctive character—The bark occurs in curved or flattened pieces about $1\frac{1}{2}$ inch or more in width and about $\frac{1}{4}$ inch in thickness, with the greyish epidermis removed, leaving a dull brown surface, or where it has been cut more deeply, alternate layers of buff and white tissue. The inner surface is smooth and brownish white. The transverse fracture is whitish and granular, with two or three layers of pale brownish stone cells, the inner portion showing fibrous laminae. Taste, bitter. Odour, none. The *Populus alba* is used in Italy.



PLANTAIN

(See page 276)



POPPY

(See page 282)



POPPY, RED

(See page 282)



PRIMROSE

(See page 284)

POPPY,*Papaver somniferum*, Linn.Fam. *Papaveraceæ*.

Syn.—Mawseed.

Parts used—Capsules.

Action—Anodyne, narcotic. The crushed capsules are used generally as a poultice in combination with Chamomile Flowers. Syrups are prepared from the flowers or capsules, which are prescribed as ingredients in cough medicines. Opium is extracted from Poppies grown in the East, but those of European growth yield but little of the drug.

Preparations—Dec. Papav. et Anthem Fort B.P.C. Ext. Papav. Liq. B.P.C. : Dose, 10–30 minims. Syr. Papav. B.P.C. : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The capsules of the opium poppy are usually hemispherical, but depressed at the top, where the many-rayed stigma occupies the centre, and have a swollen ring below, where it joins the stalk. The small kidney-shaped seeds are attached to lateral projections (placentæ) from the inner walls of the capsule. Ovoid capsules are sometimes met with. The broken capsules and the broken fruits are sold at a cheaper price for making fomentations. The grey seeds are sold for birds' food under the name of "maw" seed. The flowers vary in colour from pure white to reddish purple. In the wild plant they are pale lilac with a purple basal spot.

POPPY, RED.*Papaver Rhœas*, Linn.Fam. *Papaveraceæ*.

Syn.—Corn Poppy, Corn Rose, Flores Rhœados.

Part used—Flower petals.

Action—Anodyne, expectorant. The fresh petals were used in B.P. 1885 for preparing a syrup (Syr. Rhœados).

Preparation—Syr. Rhœad. B.P.C. : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—There are several varieties of the Red Poppy, differing in the shape of the fruit, r, smooth or the lobes of the leaves. The Red Poppy, with petals having a dark spot at the base (probably a hybrid with *Papaver umbrosum*), makes the deepest-coloured syrup.

PRICKLY ASH. *Zanthoxylum americanum*, Mill.
and *Z. Clava-Herculis*, Linn.

Fam. Rutaceæ.

Syn. *Fraxino Clava Herculis* Trochache Tree, Yellow
Wo *fraxineum*, Willd.,
X.

Parts used—Berries, bark.

Action—Stimulant, alterative, tonic, diaphoretic. The berries are considered the more active, and are also carminative and antispasmodic. May be used wherever a general stimulant is required, and will be found of especial service in the treatment of rheumatism and skin diseases.

Preparations—Fluid extract, bark: Dose, $\frac{1}{4}$ –1 drachm. Solid extract Dose, 2–4 grains. Fluid extract, berries: Dose, 10–30 minims. Xanthoxylin: Dose, 1–2 grains.

Distinctive character—The Northern bark is in curved or quilled fragments about $\frac{1}{4}$ inch thick, externally brownish grey, with whitish patches, faintly furrowed, $\frac{1}{4}$ inch for yellow in pungent, causing salivation. The Southern bark, which is usually sold, is $\frac{1}{8}$ inch thick and has conical, corky spines sometimes $\frac{1}{4}$ inch in height.

PRIMROSE.*Primula vulgaris*, Huds.**Parts used**—Root, herb.Fam. *Primulaceæ*.

Action—Astringent, antispasmodic, vermifuge. In the early days of medicine this plant constituted an important remedy in muscular rheumatism, paralysis, and gout. Now it is seldom used. In America, Prof. Scudder used a tincture of the fresh plant in bloom, in a strength of 10 ounces to 1 pint of alcohol, in doses of 1-10 drops, in extreme sensitiveness, restlessness, and insomnia. The infusion of root is taken in tablespoonful doses.

Distinctive character—The leaves are about 5 inches long and $1\frac{1}{2}$ inch broad, tapering, oblanceolate, rounded above, and tapering below into a winged stalk, reticulated and smooth above, the veins and veinlets prominent beneath and hairy, the margin irregularly and shortly dentate. Taste, insipid. Odour, none. Rootstock knotty, with successive bases of fallen leaves with cylindrical branched rootlets on all sides. Transverse section reddish, with a central pith.

PRUNE.*Prunus domestica*, Linn.Var. *Juliana*, D.C.**Syn.**—Plum Tree, Prune Tree.Fam. *Rosaceæ*.**Part used**—Dried fruits.

Action—Laxative, refrigerant. Prunes are often added to cathartic decoctions, improving their flavour and promoting their effect. In leucorrhœa, irregular menstruation, and in debility following miscarriage, the following has been used: Small Raisins or Currants, 2 ounces; Aniseed, Mace, and Cinnamon, of each $\frac{1}{2}$ ounce; and 1 Nutmeg powdered; Prune brandy, 1 quart. Powder the drugs and macerate in brandy for 2 weeks. One tablespoonful of the clear tincture is the dose, repeated thrice daily.

Prunes form a part of Confection of Sennæ B.P. and U.S.P.

PSYLLIUM.*Plantago ovata*, Forsk.*P. Psyllium*, Linn.*P. Arenaria*, Waldst & Kit.Fam. *Plantaginaceæ*.

Syn.—Flea Seed, Fleawort Spogel, Ispaghula.

Part used—Seeds.

A genus of stemless herbaceous plants comprising over 100 species.

The Seed mentioned as Ispaghula in the B.P.C. is known as Light Indian Psyllium. It is obtained from *Plantago ovata*, grown in India. The seeds are greyish-brown in colour and boat-shaped, one end being more pointed than the other. On the convex surface there is a small brown spot. Soaked in water they become surrounded with a transparent mucilage.

Dark Brilliant Indian Psyllium, obtained from *Plantago Psyllium*, is a native of Barbary and Southern Europe. These seeds are cultivated in France and Spain, and are the most popular for use in medicine. They do not, however, contain as much mucilage as *Ispaghula*. English or Golden Psyllium contains little mucilage and is used principally for bird food.

Action—These seeds when moistened swell into a gelatinous mass, which lubricates the intestine, at the same time stimulating its normal activity. They are tasteless and odourless, the action being gentle and certain. No griping is experienced and the dose may be repeated. Psyllium is used successfully in dysentery in the tropics.

Dose: Adults, two to four teaspoonfuls after each meal; children, one teaspoonful after each meal. Place the Psyllium in a cup or tumbler, adding a wineglassful or more of warm water, stir until the mixture thickens, and drink the contents. It may be flavoured with a trace of lemon or orange juice, or eaten with stewed fruit.

PUFF BALL.*Lycoperdon Bovista*, Linn.Fam. *Fungi*.Syn.—*Lycoperdon giganteum*, Huss.

Part used—Lower spongy portion.

Action—Hæmostatic. (The smoke produced by burning it is used for stupefying bees.)

Distinctive character—This fungus forms a globose or depressed ball, varying from 4 inches to 1 foot or more in diameter, sometimes furrowed at the base, whitish when young, the internal mass white, consisting of spores and fine thread-like fibres (capillitium), which, from yellow, change to brownish olive or blackish, and are discharged by the bursting of the skin.

PULSATILLA.*Anemone Pulsatilla*, Linn.Fam. *Ranunculaceæ*.

Syn.—Pasque Flower, Passe Flower, Wind Flower, Meadow Anemone, Easter Flower.

Part used—Herb.

Action—Nervine, antispasmodic, alterative. Much esteemed as a remedy for nerve exhaustion in women, especially when due to menstrual troubles. Its stimulating action on all mucous surfaces makes it valuable in catarrh, amenorrhœa, &c.

Preparations—Elix. Euonym. et Pulsat. B.P.C.: Dose, 1-4 drachms. Ext. Pulsat. Liq. B.P.C.: Dose, 2-5 minims. Liq. Cauloph. et Pulsat. B.P.C.: Dose, 1-2 drachms. Liq. Cauloph. et Pulsat. Co. B.P.C.: Dose, 1-2 drachms. Tinct. Pulsat. B.P.C.: Dose, 5-30 minims.

Distinctive character—Leaves hairy, 3-5 inches long or more, and 2-3 inches broad, bipinnate, the leaflets opposite, stalked below, the segments trifid and linear, with acute points. Leafstalks round, with a narrow channel on the upper surface and purplish at the base. Flowers large, with purple sepals, hairy

outside, and hairy tailed carpels. Taste, when fresh, acrid and burning. Odour, none.

In the *Anemone pratensis*, Linn., the flowers are smaller, blackish purple, with the tips of the segments bent backwards. This species is used in homœopathic medicine.

PUMPKIN.

Cucurbita maxima, Duchesne.

Fam. *Cucurbitaceæ*.

Syn.—Pumpkin Seed.

Part used—Seeds.

Action—Tœnicide, diuretic, demulcent. It has long been a popular worm remedy. Lately it has also been used for tapeworm. The patient fasts for a day, and takes a saline cathartic. Then a mixture—made as follows—2 ounces of seeds are beaten up with as much sugar and milk or water added to make a pint—is given in three doses every two hours, and a few hours after the last dose, a dose of Castor Oil is given. The ordinary infusion—1 ounce to 1 pint—has also been used in urinary complaints, scalding of urine, and gonorrhœa.

Distinctive character—The seeds are broadly ovate, nearly 1 inch long, whitish, with a shallow groove and flat ridge round the margin. The hilum is near the pointed end. Cotyledons flat, white, oily, with a short, comicle radicle. Taste, nutty. Inodorous.

PYRETHRUM, DALMATIAN.

Chrysanthemum cinerariæfolium, Vis.

Fam. *Compositæ*.

Syn.—Insect Powder, Insect Flowers.

Part used—Closed flowers. Imported from Dalmatia and Japan.

Action—Insecticide, vermin killer. Insect powder is harmless to human beings, and is used in powder, lotions, and in fumigations to destroy insects, &c.

The activity of the powder ground from insect flowers depends upon the content of Pyrethrin, and should not contain less than 0.4 per cent.

Distinctive character—The closed flowers are preferred as being more active. The phyllaries or bracts outside the flowers are lanceolate, acute, and hairy. The receptacle has no paleæ and is nearly flat; the marginal florets are whitish, and the fruit calyx has five slender rib-like wings, and five teeth, but no pappus. Taste, slightly acrid. Odour, none.

Varieties—Persian Insect Flowers derived from *Ch. Marshallii* and *Ch. Roseum* from the Caucasus are both met with on the market and have similar properties to the Dalmatian Flower.

QUASSIA.

Picræna excelsa, Lindl.

Fam. *Simarubaceæ*.

Syn.—Bitter Wood, Bitter Ash, *Quassia amara*, Linn.

Part used—Wood. Imported from Jamaica.

Action—Tonic, bitter, anthelmintic. The wood is generally sold in small chips, but cups turned out of the log may be obtained. They are sold as Bitter Cups, and water standing in them for a short time acquires the bitterness of the wood. It is especially useful in the treatment of dyspepsia and debility of the digestive apparatus. For worms it is also a valuable remedy. The infusion of 1 ounce of chips in 1 pint of cold water is taken in wineglassful doses.

Preparations—Powdered bark: Dose, 2-8 grains. Ext. Quass. B.P.C.: Dose, 3-5 grains. Inf. Quass. Conc. B.P.: Dose, $\frac{1}{2}$ -1 drachm. Inf. Quass. Rec. B.P.: Dose, $\frac{1}{2}$ -1 fluid ounce. Tinct. Quass. B.P.: Dose, $\frac{1}{2}$ -1 drachm.

Distinctive character—The wood is usually sold in yellowish white chips about 1 inch wide, and 1-4 inches long, and $\frac{1}{8}$ - $\frac{1}{2}$ inch thick, but sometimes much smaller. Taste, very bitter. Odour, none. Some samples of a yellowish colour contain starch, and the infusion made

with boiling water would then not keep well. These are possibly derived from *Quassia amara* or Surinam Quassia, which differs in containing no raphides, and in the medullary rays being only two cells broad, whilst there are usually three in the genuine or Jamaica Quassia. Exhausted Quassia having hardly any bitterness is sometimes met with in commerce, and also Quassia with greyish markings due to fungus, and therefore not fit for infusion.

QUEBRACHO.

Aspidosperma Quebracho, Schlecht

Fam. *Apocynaceæ*

Part used—Bark

Action—Antiperiodic, tonic, anti-asthmatic. Very useful in the suffocating symptoms of bronchitis, asthma, &c. Also recommended in pulmonary complaints.

Preparations—Fluid extract. Dose, $\frac{1}{4}$ – $\frac{1}{2}$ drachm. Aspidospermin (Alkaloid).

Distinctive character—The bark occurs in curved or flattish pieces $\frac{1}{2}$ –1 inch thick, greyish and deeply fissured externally. The inner surface is yellowish brown, often with a reddish tint and striated. The transverse fracture shows a coarsely granular, yellowish brown outer layer, and a shortly fibrous or splintery, darker inner layer. Taste, bitter. Odour, none.

QUEEN'S DELIGHT. *Stillingia sylvatica*, Linn.

Fam. *Euphorbiacæ*.

Syn.—Queen's Root, Yaw Root.

Part used—Root

Action—Alterative, laxative, tonic, diuretic. This is principally used in cases of syphilis, scrofula, and impure conditions of the blood, for which it forms a certain and valuable remedy. It is generally given in combination with other medicines.

Preparations—Powdered root : Dose, $\frac{1}{4}$ – $\frac{1}{2}$ drachm. Solid extract : Dose, 2–5 grains. Fluid extract : Dose, 10–30 drops. Tincture : Dose, $\frac{1}{2}$ –2 drachms. Stillingin : Dose, 1–3 grains.

Distinctive character—In pieces several inches in length and from $\frac{3}{4}$ –2 inches thick, tapering, greyish brown, wrinkled longitudinally. Bark thick and, as well as the central wood, pinkish white, with numerous minute resin cells, tough and finely fibrous, and often starchy. Taste, bitter and acrid and pungent. Odour, characteristic and unpleasant.

QUINCE.

Pyrus Cydonia, Linn.

Fam. *Rosaceæ*.

Syn.—Quince Seed, *Cydonia vulgaris*, Pers.

Part used—Seeds.

Action—Mucilaginous, demulcent. It is of use in gonorrhœa, dysentery, and diarrhœa ; externally also, in eye diseases, as a soothing lotion.

Distinctive character—The seeds or pips are usually glued together in a double row of three to fourteen by the dried mucilage, contained in the outer seed coats. In appearance, size, and taste they resemble apple pips, but have become angular by mutual pressure.

RAGWORT.

Senecio Jacobæa, Linn.

Fam. *Compositæ*.

Syn.—Stinking Nanny, St. James' Wort, Staggerwort, Ragweed, Dog Standard, Fireweed.

Part used—Herb.

Action—Diaphoretic, detergent. Useful in coughs, colds, influenza, and catarrh of mucous membranes generally. It gives relief to sciatica and rheumatic or gouty pains in limbs. The decoction of 1 ounce in 1 pint of water is taken in wineglassful doses as required. Externally this is used as an application to ulcers,



PULSATILLA

(See page 286)



RAGWORT

(See page 290)



RASPBERRY

(See page 292)



RED CLOVER

(See page 293)

wounds, &c., and as a gargle in relaxed throat. A poultice may be made from the herb and applied to gouty swellings of joints. Ragwort Ointment prepared from the fresh plant is excellent for inflammation of the eyes.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stem striate, $1\frac{1}{2}$ –2 or 3 feet high, leaves alternate, lower lyrate-pinnatifid, stalked, upper sessile bi-pinnatifid, with oblong segments deeply and irregularly toothed. Flowerheads yellow. Florets of the ray smooth, with deciduous pappus. Florets of the disk hairy.

RASPBERRY.

Rubus Idæus, Linn.

Fam. *Rosaceæ*.

Syn.—*Rubus strigosus*, Michx., American Raspberry.

Parts used—Leaves, fruits.

Action—Astringent, stimulant. The infusion of 1 ounce in 1 pint of boiling water is used as a general gargle in sore mouths, canker of the throat, &c., and as a wash for ulcers and wounds. Combined with Slippery Elm the leaves form a good poultice for removing proud flesh and cleansing wounds. It will be found valuable in stomach complaints of children. Dr. Thompson and Dr. Coffin recommend the drinking of the tea by pregnant females for giving strength and rendering parturition easy and speedy. It should be taken freely before and during the confinement. The addition of Composition Essence will form a valuable adjunct at such times. This should always be taken warm.

Preparation—Fluid extract (leaves) : Dose, 1–2 drachms.

Distinctive character—Leaves stalked, pinnate, with two pairs of ovate leaflets, and a larger terminal one, the leaflets doubly serrate at the margins, rounded at the base, and abruptly pointed at the apex, and greyish white beneath, with appressed felted hairs, $2\frac{1}{2}$ – $3\frac{1}{2}$ inches long and 2–3 inches broad. Taste, astringent. Odour, none.

RED CLOVER.

Trifolium pratense, Linn.Fam. *Leguminosæ*.

Syn.—Trefoil, Purple Clover.

Part used—Blossoms.

Action—Alterative, sedative. Is an excellent remedy in spasmodic and bronchial coughs, whooping coughs, &c. The infusion of 1 ounce to 1 pint of boiling water may be used freely. Generally combined with other drugs of an alterative character, as *Stillingia*, *Lappa*, *Xanthoxylum*, &c. Externally Red Clover is often used as a plaster in cancer.

Preparations—Fluid extract Dose, $\frac{1}{2}$ –2 drachms.
Solid extract (for use as a plaster).

Distinctive character—Flowerheads ovate, sessile, usually with a stalked trifoliate leaf and two purplish-veined ovate stipules beneath the head, purplish pink, about 1 inch long and $1\frac{1}{2}$ inch broad. Flowers slender, $\frac{1}{2}$ inch long, small, papilionaceous. Taste and odour, agreeable.

RED ROOT.

Ceanothus Americanus, Linn.Fam. *Celastraceæ*.

Syn.—Jersey Tea Root

Part used—Root.

Action—Astringent, expectorant, antispasmodic. Used internally for gonorrhœa, asthma, bronchitis, and pulmonary complaints. For sores in the mouth it makes an excellent wash.

Preparation—Fluid extract Dose, 1–30 drops.

Distinctive character—Root tough, woody, usually in pieces about $\frac{3}{4}$ inch thick and several inches in length, dark brown, striated, or finely wrinkled longitudinally. Fracture hard, tough, and splintery. Bark thin, deep brown, and brittle. Wood dense, reddish, concentric rings obscure, porous vessels arranged in single concentric and radiate lines. Taste, astringent. Inodorous.



RHATANY, PERUVIAN.

Krameria triandra, R. and P.Fam. *Leguminosæ*.

Syn.—Rhatanhia.

Part used—Root.

Action—Astringent, tonic. Used internally to advantage in passive hæmorrhages, mucous discharges, and in menstrual disorders. Also in diarrhœa and incontinence of urine. Is useful as an application to spongy and bleeding gums.

Preparations—Ext. Kramer. Sicc. B.P. : Dose, 5-15 grains. Inf. Kramer. Conc. B.P.C. : Dose, $\frac{1}{2}$ -1 drachm. Inf. Kramer, Rec. B.P.C. : Dose $\frac{1}{2}$ -1 fluid ounce. Tinct. Kramer B.P. : Dose, $\frac{1}{2}$ -1 drachm. Troch. Kramer. B.P. Troch. Kramer. et Cocain.

Distinctive character—Root woody, cylindrical, branched, deep reddish brown, and rough externally, with a coarsely fibrous bark and hard, tough, woody centre. The root of Para Rhatany, derived from *K. argentea*, Mart., has transverse cracks and a short, not fibrous, fracture. Taste, very astringent. Odour, none. Varying in diameter from $\frac{1}{4}$ - $\frac{3}{4}$ inch.

RHUBARB, EAST INDIAN, CHINA, or TURKEY.

Rheum palmatum, Linn.(And other species.) Fam. *Polygonacæ*.

Part used—Root.

Action—Astringent, tonic, stomachic, aperient. In small doses the powder will cure diarrhœa; in large doses it acts as a simple and safe purgative, and is justly esteemed one of the most valuable remedies we possess. The tincture is chiefly used, but the powder is perhaps as effective and reliable.

Preparations—Powdered root: Dose, 3-15 grains. Ext. Rhei B.P.C. : Dose, 2-8 grains. Ext. Rhei Liq.

B.P.C. : Dose, 10-30 minims. Inf. Rhei Conc. B.P.C. : Dose, $\frac{1}{2}$ -1 drachm. Inf. Rhei Rec. B.P.C. : Dose, $\frac{1}{2}$ -1 fluid ounce. Liq. Rhei Dulc. B.P.C. : Dose, 1-3 drachms. Mist. Rhei et Casc. B.P.C. : Dose, $\frac{1}{2}$ -1 fluid ounce. Mist. Rhei et Sod. Bicarb. B.P.C. : Dose, $\frac{1}{2}$ -1 fluid ounce. Pulv. Rhei Co. B.P. : Dose, 10-60 grains. Syr. Rhei B.P.C. : Dose, $\frac{1}{2}$ -2 drachms. Tinct. Rhei Co. B.P. : Dose, $\frac{1}{2}$ -1 drachm. Rhubarb enters into the composition of several pills and tablets.

Distinctive character—Formerly Rhubarb was conveyed by caravan from China *via* Persia to Turkey, and was known as Turkey Rhubarb; or *via* India (East Indian Rhubarb). Shensi Rhubarb is the most expensive and undoubtedly the best. The root is heavy and smooth, having been peeled and dressed, and is distinguished by the presence of dark brown spots or warts, with network of white lines. Canton Rhubarb is more fibrous and not so bright, without the warty appearance, and network of white lines less marked. *High dried* or stove dried is very hard, shrunken, and waxy. *Rough Rounds*, the poorest quality of Chinese Rhubarb, are partially trimmed, showing dark patches on the outer surface. The root is generally perforated with a hole through which a piece of cord is strung for drying. The principal forms are known as rounds and flats; the quality is judged by the fracture, which ranges from a bright to a dull brown.

RHUBARB, ENGLISH. *Rheum officinale*, Bail.,
and *Rheum rhaponticum*, Willd.

Fam. *Polygonacea*.

Part used—Root.

Action—Stomachic, aperient. Similar in action to Turkey Rhubarb, though milder. Is especially useful in infantile stomach troubles and looseness of bowels. In fairly large doses it acts as a laxative.

Preparation—Powdered root : Dose, 5-60 grains.

Distinctive character—English Rhubarb, derived from *Rheum rhabonticum*, Willd., or from *Rheum officinale*, Baill., presents a shrunken surface, and the transverse section shows that the bark has not been removed as in the Chinese drug. When holes are present, they are round and clean, evidently made with a rat's-tail file. The English Rhubarb, from *Rheum rhabonticum*, shows red veins, and that of *R. officinale* blackish veins; the latter is usually in large pieces. Chinese *rhabonticum* closely resembles the English, but is generally heavier and dark rather than pink fracture.

RICE.

Oryza sativa, Linn.

Fam. Gramineæ.

Part used—Seeds.

Action—Nutritive, demulcent. Boiled rice is very useful in disorganised digestion, in bowel derangements, and in diarrhoea. Rice-water, made in a similar manner to Barley-water, is used as a soothing, nourishing drink in febrile diseases and inflammatory states of intestines.

ROSE, PALE.

Rosa centifolia, Linn.

Fam. Rosaceæ.

Syn.—Cabbage Rose, Hundred-leaved Rose.

Part used—Flower petals

Action—Aperient. Seldom, if ever, used internally. On account of its fragrantcy it is used in France for distillation of Rosewater

Distinctive character—The petals are pink, whitish towards the base, and are usually supplied free from the calyx. The odour is that of the Cabbage Rose. Taste, slightly astringent and sweet.

ROSE, RED.

Rosa gallica, Linn.Fam. *Rosaceæ*.

Syn.—Rose Flowers, Provence Rose.

Part used—Petals.

Action—Tonic, astringent. Seldom used internally. The infusion is used as a flavouring for other medicines or as a lotion in ophthalmia, &c. The confection is mostly used in pill-making.

Preparations—Conf. Ros. Gall. B.P.C. Inf. Ros. Acid. Conc. B.P.C. : Dose, $\frac{1}{2}$ –1 drachm. Inf. Ros. Acid. Rec. B.P.C. : Dose, $\frac{1}{2}$ –1 fluid ounce. Syr. Ros. B.P.C. : Dose, $\frac{1}{2}$ –1 drachm. From *Rosa damascena* : Aq. Mel. B.P.C., Aq. Ros. B.P.C., Aq. Ros. Conc. B.P.C., Aq. Ros. Trip. B.P.C., Ung. Ros. Alb. B.P.C., Ol. Ros. B.P.C. (Syn., Otto of Rose).

Distinctive character—The Red Rose flowers consist of the unopened flowerbuds with the calyx removed. They are of deep, dark rose colour, slightly paler at the base. Taste, astringent and sweetish. Odour, that of the damask rose.

Triple Rose Water and Oil of Rose are prepared from the flowers of *Rosa damascena*, Linn., cultivated in Bulgaria.

ROSEMARY.

Rosmarinus officinalis, Linn.Fam. *Labiataæ*.

Syn.—Romero.

Part used—Herb.

Action—Tonic, astringent, diaphoretic. Also an excellent stomachic and nervine. Cures many cases of headache. Used externally, an infusion combined with Borax makes a good hair wash and will prevent premature baldness.

Preparations—Oil : Dose, 1–3 minims. Spirit B.P. : Dose, 5–20 minims.

Distinctive character—Stem somewhat woody.

square. Leaves linear obtuse, dark green above, white below, with branched stellate hairs, the margins strongly revolute. Flowers, when present, bluish lilac, two-lipped with two stamens only. Taste, aromatic. Odour, characteristic.

ROSINWEED.*Silphium laciniatum*, Linn.Fam. *Compositæ*.

Syn.—Compass Plant, Compass Weed, Polar Plant.

Parts used—Herb, root.

Action—Antispasmodic, diuretic, expectorant, emetic. It is reputed to have effected cures of dry, obstinate coughs of asthma and pulmonary catarrhal diseases. It is also beneficial in intermittent fevers

Preparation—Fluid extract Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The article in commerce consists of broken-up leaves. The rachis of the leaves is plano-convex, with the marks of decurrent leaflets. The fragments of leaves are stiff, papery, but brittle, and without hairs, with the surface faintly reticulated. Main root 1–2 inches long, and 1 inch in diameter, ending abruptly below, and laterally branched at the base, the roots enlarging downwards from $\frac{1}{4}$ – $\frac{1}{2}$ inch in diameter, dark greyish brown, striated longitudinally; transverse section showing concentric lines and radiate structure, variegated with dark grey and white, and a small central pith. Fracture rough and fibrous. Taste, bitter and then acrid. Odour, none

RUE.*Ruta graveolens*, LinnFam. *Rutaceæ*.

Syn.—Garden Rue, Herb of Grace, Herbygrass.

Part used—Herb.

Action—Stimulant, antispasmodic, emmenagogue. It is chiefly used in suppression of the menses, but should not be taken in large doses, as it is liable to pro-



Distinctive character—The seeds are usually met with freed from the capsules, and are linear, pointed, shining, wrinkled and angular, or concave by mutual pressure, and contain oily albumen. The capsules are more rarely met with. They consist of thin, oblong, pointed, light brown, papery carpels about $\frac{1}{2}$ inch long, and united at their base, each containing two seeds. Taste, bitter, acrid. Odour, none

SAFFLOWER. *Carthamus tinctorius*, Linn.
Fam. *Compositæ*.

Syn.—American Saffron, False Saffron, Bastard Saffron, Flores Carthami, Dyer's Saffron.

Part used—Flowers

Action—Laxative, diaphoretic In domestic practice these flowers are used for similar purposes as Saffron proper, as in children's and infants' complaints and diseases, measles, fevers, and eruptive skin complaints. The infusion made of $\frac{1}{2}$ ounce to 1 pint of boiling water, if taken warm, is said to restore the menstrual discharge, and will produce diaphoresis

Distinctive character—The commercial article consists of the florets separated from the flowerheads, either loose or compressed into small circular cakes. The florets are cylindrical, slender, orange, nearly $\frac{1}{2}$ inch long, with five linear teeth. The taste is feebly bitter, and the odour not unpleasant when recent, but faintly valerianic on keeping

SAFFRON. *Crocus sativus*, Linn.
Fam. *Iridacæ*.

Syn.—Crocus, Alicante Saffron, Valencia Saffron, Gatinais Saffron, Hay Saffron

Part used Flower pistils Gathered in the autumn.

Action—Carminative, diaphoretic emmenagogue. It has been used with benefit in amenorrhœa, dysmenorrhœa, hysteria, &c It arrests chronic discharges of

blood from the uterus. Used as a diaphoretic, especially for children. The infusion of 1 drachm in 1 pint of boiling water is given in wineglassful to teacupful doses.

Preparations—Glycer. Croc. B.P.C. Syr. Croc. B.P.C. Tinct. Croc. (1 in 5): Dose, 5-15 minims. Powdered Saffron: Dose, 12-40 grains.

Distinctive character—The drug consists of the three filiform, deep orange-red stigmas attached to the upper part of the style, the whole about 1-1½ inch long. The stigmas are tubular and slit open at the upper end, and toothed at the apex. Taste, aromatic, but characteristic. Odour, pleasant, and also characteristic. Saffron, if pure, should not contain anything different in form from the above description: should not throw down a deposit when placed in water, and should not fizz or decrepitate when burnt.

Alicante Saffron is frequently adulterated. Cake Saffron is generally a mixture of Saffron and Safflower made into cakes with honey.

SAGO.

Metroxylon Rumphii, Mart.

Fam. *Palmaceæ*.

Syn.—Pearl Sago, Sago Meal, Sago Flour, *Sagus Rumphii*, Willd., *Sagus genuina*.

Part used—Prepared pith-starch.

Action—Nutritive, demulcent. Mostly used in the household and for convalescents as food or demulcent.

Distinctive character—Sago occurs in various forms and sizes in commerce. Genuine Sago is rarely quite white. The ordinary Sago of commerce is often made from potato starch. The starch grains of the two plants are quite different in shape and size, those of the potato being larger with a round hilum at the smaller end, and those of Sago smaller, more or less muller-shaped, with one truncate end, and a linear hilum at the larger rounded end. The heat employed in making Sago is apt to break most of the granules, but in Sago Meal or Flour they are easily distinguished.

SALEP. *Orchis mascula*, Linn., *O. maculata*, Linn.,
and *O. latifolia*, Linn.

Syn.—Salep Root.

Fam. *Orchidaceæ*.

Part used—Root.

Action—Demulcent, highly nutritious. Used for similar purposes to Arrowroot.

Distinctive character—Tubers whitish or pale brownish yellow, about 1-1½ inch long and ½-¾ inch in diameter, oblong-oval or elliptical, somewhat cylindrical compressed, usually with a stem-scar at one end, and tapering to a point at the other. Some varieties are compressed palmate, with three to five pointed lobes, also with a stem scar at the crown, sometimes wrinkled or shrivelled, but always horny and tough, and not easily fractured. Taste, mucilaginous Odour, none.

SAMPHIRE.

Crithmum maritimum.

Syn.—Rock Fennel

Fam. *Umbelliferae*.

Part used—Dried herb

Action—An infusion of 1 ounce of the herb in 1 pint of boiling water is taken freely in wineglassful doses. It is reputed to be an excellent treatment for obesity. It is also recommended as a diuretic and as an acid to the kidneys. The fleshy leaves are also used in pickles.

Distinctive character—This herb is found largely on the saltings in Essex, growing to a height of about 10 inches. It is well distinguished by its glaucous twice-ternate leaves, the divisions of which are very succulent, and taper towards either extremity.

SANDALWOOD.

Santalum album, Linn.

Syn.—Santalwood

Fam. *Santalaceæ*.

Parts used—Wood, oil.

Action—Diuretic, antiseptic. Is chiefly employed in treatment of chronic mucous affections such as inflammation of bladder, gonorrhœa, and other urinary diseases. The fluid extract of the wood is often better tolerated than the oil.

All Sandalwood Oils are used in perfumery, and the fine wood raspings frequently form a component part of pot pourri mixtures.

Preparations—Ol. Santal B.P. : Dose, 5-15 minims.
Liquid extract : Dose, 1-2 drachms. Liq. Copaib.,
Buchu et Cubeb c Ol. Santal B.P.C. : Dose, 1-2 drachms.
Liq. Copaib. et Ol. Santal B.P.C. : Dose, 1-2 drachms.
Liq. Santal Co. B.P.C. : Dose, 1-2 drachms.

Distinctive character—This wood is usually sold in the form of fine raspings, yellowish, and of a fragrant odour.

Varieties : Oil of Australian Sandalwood is distilled from the wood of *Eucarya spicata*, sometimes known as *Santalum Spicatum*, growing in West Australia. This oil is also official in the B.P. and has similar uses to Ol. Santal B.P.

Oil of West Indian Sandal, known also as Oil of Amyris, is obtained from the *Schimmelia oleifera*, Holmes (*Amyris Balsamifera*, Linn.). This oil has from time to time been used to adulterate Ol. Santal B.P. It has a lower specific gravity and is much less soluble in 70 per cent. spirit than the official oil.

SANDERS WOOD, RED.

Pterocarpus santalinus, Linn.

Fam. Leguminosæ.

Syn.—Rubywood, Red Sandalwood, *Santalum rubrum*, *Lignum rubrum*.

Part used—Wood.

Action—Tonic, astringent. Hardly ever used for its medicinal properties. As a colouring agent it forms part of Comp. Tincture of Lavender B.P.C.

Distinctive character—Imported in billets, but usually met with in commerce in the form of raspings of a deep purplish red tint, which do not colour water when soaked in it. Nearly tasteless. Odour, none.



RUPTUREWORT

(See page 300)



SANICLE

(See page 306)



SCURVYGRASS

(See page 314)



SEA-LAVENDER

(See page 314)

SANICLE.*Sanicula Europæa*, Linn.

Syn.—Pool Root.

Fam. *Umbelliferae*.

Part used—Herb.

Action—Astringent, alterative. Generally given in combination with other herbs in the treatment of blood disorders, for which it is highly esteemed. It is useful also in leucorrhœa, dysentery, diarrhœa, &c. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The herb has a nearly simple stem, reddish and furrowed, the long-stalked leaves are firm, shining green above, rather paler below, about 2–3 inches across, rounded in outline, and divided deeply into five irregularly trifid and serrate lobes which are broadly wedge-shaped below. Taste, bitter, astringent, subsequently acid. Odour, none.

SARSAPARILLA, AMERICAN.*Aralia nudicaulis*, Linn.

Syn.—Bamboo Brier.

Fam. *Araliaceæ*.

Part used—Root.

Action—Alterative, pectoral, diaphoretic, sudorific. Though quite distinct from Jamaica Sarsaparilla, it will be found a very efficient substitute and by many is regarded as superior in alterative properties. It may be used in all cases of syphilis, skin diseases, and rheumatism, and is best given in the form of a decoction, made from one ounce of root boiled in 1 pint of water for half an hour, in wineglassful doses frequently. For coughs, colds, &c., it should be used as a syrup.

Preparation—Fluid extract : Dose, 1 drachm.

Distinctive character—Rhizome about $\frac{3}{4}$ inch thick, with cup-shaped disks at alternate intervals of about $\frac{1}{2}$ inch, with a greyish, scaly epidermis, easily removed from the whitish bark, which itself does not adhere to

the wood when dry; the woody centre is finely porous and encloses a small pith. Taste, slightly aromatic and bitterish. Odour, none. Described by Maisch as 12 inches or more long, $1\frac{1}{4}$ inch thick, annulate above, with cup-shaped scars. Bark light grey, brown, exfoliating, internally whitish, with yellowish wood and spongy pith. Fracture short. Taste, mawkish and slightly aromatic.

SARSAPARILLA, INDIAN.

Hemidesmus indicus, R. Br.

Fam. *Asclepiadaceæ*.

Syn.—*Hemidesmus*, Country Sarsaparilla.

Part used—Root.

Action—Diuretic, alterative. Used in constitutional debility, chronic rheumatism, and syphilitic skin diseases and ulcerations. Much thought of by the Indian natives, who ascribe to it several medicinal virtues besides those mentioned.

Preparation—Syrup. Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—In cylindrical transversely-cracked pieces, 6 inches or more in length and about $\frac{1}{4}$ inch thick, with the corky layer often loosely attached, violet brown, or of a reddish tint. The section shows a white, mealy, corky layer, somewhat violet-tinted, and a yellowish, woody centre. Taste, pleasant, sweetish, slightly acid. Odour, recalling heliotrope.

SARSAPARILLA, JAMAICA.

Smilax ornata, Hook. f.

Fam. *Liliaceæ*.

Syn.—*Smilax medica*, Schlecht and Cham., *Smilax officinalis*, H., B. & K.

Part used—Root.

Action—Alterative. Thus is the root introduced by the Spaniards in 1563 as a sure cure for syphilis. It has been thoroughly tested since then, and experience has

demonstrated the fact that it is not an absolute specific. However, it contains active alterative principles, which cause it still to be held in high opinion as a general purifier of the blood. It is chiefly given in conjunction with other remedies, such as Sassafras, Burdock, &c. It forms the chief ingredient in the Concentrated Compound decoction of Sarsaparilla of the B.P.C.

Preparation—Root: Dose, $\frac{1}{2}$ –1 drachm.
 : : : : : Dose, 2–4 drachms. Solid
 : : : : : Dec. Sars. Co. B.P.C.:
 Dose, 2–6 fluid ounces. Dec. Sars. Co. Conc. B.P.C.:
 Dose, $\frac{1}{2}$ –1 fluid ounce.

Distinctive character—Root rusty brown, cylindrical, about $\frac{1}{4}$ – $\frac{1}{2}$ inch in diameter, with numerous slender rootlets, deeply furrowed longitudinally, the transverse section showing a brown, hard, non-mealy bark, and a porous central wood portion. Taste, slightly acrid. Odour, none. The orange-brown Jamaica native Sarsaparilla with a starchy rind is sometimes preferred. The so-called "Brown" Jamaica Sarsaparilla comes from Costa Rica. Honduras Sarsaparilla is generally imported in long thin bundles with few rootlets attached. Bales often consist of a cow's hide. Vera Cruz or Mexican Sarsaparilla is free from beard (roots), and is usually attached to the root-stock.

SASSAFRAS.

Sassafras variifolium (Salisb.) Kuntze.

Fam. Lauraceæ.

Syn.—*Sassafras officinale*, Nees and Eberm.

Parts used—Bark of root, root. Imported from U.S.A. Pith from stems

Action—Stimulant, diaphoretic, diuretic. Used with success in eruptions of the skin, rheumatism, gout, &c. A decoction is beneficial as a wash for the eyes in ophthalmia, inflammation, &c. An infusion of 1 ounce of crushed bark in 1 pint of boiling water is taken in doses

of a wineglassful, repeated frequently. Is generally given in combination with other remedies.

Preparations—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm. Oil : Dose, $\frac{1}{2}$ –5 drops Mucilage U.S.P. : Dose, 4 drachms (made from pith).

A volatile Oil of Sassafras is official in U.S.P., being distilled from the rootbark

Distinctive character—The rootbark is of a bright, rust-brown colour, in irregular pieces, soft and brittle. The transverse fracture is short and corky, in definite layers, and shows numerous oil cells. Taste, sweetish aromatic, slightly astringent. Odour, agreeably aromatic.

The woody root is usually sold in the form of chips of a brownish white tint, which shows distinct concentric rings marked off by two or three rows of porous vessels, and slender medullary rays. The wood tastes distinctly of Sassafras, but that of the stem, which is often mixed with it, does not, and is further indicated by the grey surface of the bark.

SASSY BARK. *Erythrophloeum guineense*, G. Don.
Fam. Leguminosæ.

Syn.—Mancona Bark, Casca Bark

Part used—Bark

Action—Narcotic, astringent, laxative. Has been found efficient in diarrhœa, dysentery, passive hæmorrhages, &c. The infusion is made from $\frac{1}{2}$ ounce of bark in 1 pint of boiling water and taken in doses of a tablespoonful as required. Used by the natives of West Africa as an ordeal in witchcraft, &c. As it possesses toxic properties, should be used with caution.

Distinctive character—In flat or slightly curved pieces about 2 inches broad and $\frac{1}{4}$ inch thick, but varying in length, externally warty, and sometimes with a grey epidermis, furrowed longitudinally, internally red-

brown, hard; the inner surface nearly smooth, sometimes with black stains. Fracture coarsely granular, with numerous pale groups of stone cells. Taste, astringent, bitter, and acrid. Inodorous. *Very poisonous*. Should not be used except under a medical man's direction.

SAVIN.

Juniperus Sabina, Linn.

Syn.—Savine tops.

Fam. *Pinacæ*.

Part used—Tops or herb.

Action—Emmenagogue, diuretic, anthelmintic. Is sometimes combined with Tansy, Pennyroyal, and Hemlock. Although uncertain in its action, it has been used for worms in conjunction with Spigelia and Senna.

Preparations—Powdered Savin: Dose, 5-10 grains. Liquid extract: Dose, 5-15 minims. Tincture (1 in 8): Dose, 20-60 minims. Oil: Dose, 1-4 minims.

Distinctive character—The herb as imported from Italy consists of small, broken, nearly cylindrical, or slightly quadrangular twigs, with deeply imbricated scale-like leaves about $\frac{1}{2}$ inch long and lanceolate, rhombic in shape, with an oblong gland sessile in the back of the midrib. Taste, disagreeable, resinous, and bitter. Odour, recalling turpentine, but quite characteristic. The fresh plant as sold in England consists of tufts of the terminal branches about 6 inches long with the leaves longer, acute and spreading, especially below, but the taste is the same. The twigs of *Juniperus Virginiana*, Linn., and *J. phænicea*, Linn, are different in taste, and the latter has the leaves arranged in three, not four, rows.

SAVORY, SUMMER.

Satureia hortensis, Linn.

Syn.—Garden Savory.

Fam. *Labiata*.

Part used—Herb

Action—Aromatic, carminative. Chiefly used as a culinary herb, but may be added to medicines for its aromatic and warming qualities.

Distinctive character—Stem woody and oppositely branched, about 10 inches high, with linear entire leaves about $\frac{1}{2}$ inch long. Flowers small, pinkish in axillary cymes, calyx teeth five, nearly equal, linear, tapering upwards, and ciliate at the margins. Hairs, on the stem short, rather rigid, decurved. Taste, aromatic, recalling thyme and marjoram, but distinct.

SAW PALMETTO. *Serenoa serrulata*, Hook. f.
Fam. *Palmae*.

Syn.—Sabal.

Part used—Berries.

Action—Nutritive tonic, diuretic, sedative. Is highly recommended in effect upon all rapidly and bulk in consumption, atrophy of testes, mammae, &c.

Preparations—Ext. Sabal Liq. B.P.C. : Dose, 10-25 minims. Solid extract (alc.) Dose, 5-15 grains. Powdered berries Dose, 15 grains.

Distinctive character—The fruits are oval or globular, from $\frac{3}{4}$ –1 inch long, $\frac{1}{2}$ – $1\frac{1}{2}$ inch broad, externally black, with a thin, hard, but fragile pericarp covering a shrunken, pale brown, spongy pulp, which contains oil, and a thin papery endocarp. The seed is pale brown, globular or oval, with the hilum near the base. Taste of the pulp, soapy. Odour, nutty vanilla type.

SCAMMONY ROOT, MEXICAN.

Ipomœa orizabensis (Pellet) Ledanois.
Fam. *Convolvulaceæ*.

Syn.—Ipomœa, Orizaba Jalap

Part used—Resin extracted from root.

Action—Drastic purgative. The root is seldom used, although the dose is stated in some books of reference

as 5-20 grains. The resin extracted from the root is used and is frequently combined with other ingredients to diminish its action.

Preparations—Resin: Dose, $\frac{1}{2}$ -3 grains. Pulv. Scammon. Co. B.P.C.: Dose, 10-30 grains. Pil. Scammon. Co. B.P.C.: Dose, 1-2 pills.

Distinctive character—This root occurs in large transverse slices. It is wrinkled and has coarse woody strands in irregular circles. Very little odour, and acrid resinous taste. The root contains up to 20 per cent. of resin.

The resin obtained from this root is in brownish brittle lumps or pale brown powder. A white Scammony Resin Powder is also prepared by a special process of bleaching during the operation of extraction.

Varieties: Scammonium, or Virgin Scammony is a gum resin obtained by cutting and draining the living roots of *Convolvulus Scammonia*, Linn. (Fam. *Convolvulaceæ*). The milky sap is allowed to dry in shells. This is generally imported from Smyrna in flat cakes 1 or 2 inches in diameter. This product contains from 70 to 80 per cent. of Scammony Resin and the remainder is mostly gum. Dose, 5-10 grains.

SCOPOLIA.

Scopola carniolica, Jacq.

Fam. *Solanaceæ*.

Syn.—*Scopolia atropoides*, Link.

Part used—Root.

Action—Narcotic. mydriatic. Used for similar purposes as Belladonna or Henbane, both of which it resembles very much in action. It is said to be richer in alkaloids than either of above, and for this reason preferred by makers of alkaloids and plasters.

Preparations—Fluid extract: Dose, 1-5 drops. Powdered extract: Dose, 1-5 grains.

Distinctive character—Rhizome knotty, about $\frac{1}{4}$ – $\frac{1}{2}$ inch in diameter, with closely-approximated, large, cup-shaped remains of annual stems, sometimes ending in a piece of tapering, cylindrical root, but usually consisting of the rhizome only. Fracture short.

SCULLCAP.

Scutellaria lateriflora, Linn.

Fam. Labiatae.

Syn.—Skullcap, Madweed

Part used—Herb

Action—Tonic, nervine, antispasmodic, slightly astringent. Is one of the finest nervines ever discovered, and may be prescribed wherever disorders of the nervous system exist. In hysteria, convulsions, hydrophobia, St. Vitus dance, rickets, &c., its action is invaluable. Many cases of hydrophobia are known to have been cured by this remedy alone, while it may be regarded as a specific in St. Vitus dance. The dose of an infusion of 1 ounce to 1 pint of boiling water is half a teacupful frequently.

Preparations—Powdered herb Dose $\frac{1}{4}$ – $\frac{1}{2}$ drachm.
 Fluid extract Dose, $\frac{1}{2}$ –1 drachm Solid extract Dose,
 5–10 grains Scutellarin Dose, 1–2 grains

Scutellaria integrifolia, Linn (Western Skullcap), *S. galericulata*, Linn (European Skullcap) possess similar properties and are often used

Distinctive character Herb with square stems, opposite, cordate-lanceolate shortly stalked leaves with a tapering apex. Flowers blue with a helmet shaped upper lip, in axillary racemes. Taste bitterish. Odour, slight

Other species, with the flowers in one sided terminal racemes, are sometimes substituted for it

SCURVYGRASS. *Cochlearia officinalis*, Linn.
Fam. *Cruciferae*.

Syn.—Spoonwort.

Part used—Herb.

Action—Antiscorbutic, diuretic. This is a strong antiscorbutic, and may be given in all cases where such a remedy is required. The infusion of 2 ounces to 1 pint of boiling water is taken in wineglassful doses frequently repeated.

Distinctive character—The root-leaves are long-stalked, roundish, kidney-shaped, and nearly entire, the stem-leaves ovate, with a few angular teeth, becoming sessile upwards. Flowers white and cruciform, in terminal racemes. Fruit globular-ovate, two-celled, containing four red-brown seeds in each of the two cells. Taste, pungent, cress-like, bitterish, but becoming much less pungent when dry.

SEA-LAVENDER, AMERICAN.
Statice Caroliniana, Walt.
Fam. *Plumbaginaceae*.

Syn.—Marsh Rosemary, Inkroot.

Part used—Root.

Action—Astringent. This will be found very efficient wherever an astringent tonic is needed, as in bronchial hæmorrhage, sore throat, ulcerated mouth and catarrhal disorders. Externally it is recommended for piles and as a lotion in leucorrhœa, gonorrhœa, gleet, and other urinary complaints. The decoction of the powdered root, 1 ounce to 1 pint, is given in doses of a wine-glassful.

Distinctive character—Root large, spindle-shaped, or branched, compact, rough, of a purplish brown colour. Taste, bitter and astringent. Odour, none.

The English Sea Lavender (*Statice limonium*) has similar properties.

SELF-HEAL.

Prunella vulgaris, Linn.Fam. *Labiata*.

Syn.—Heal all.

Part used—Herb.

Action—Astringent. Is useful in sore and relaxed throat, also in internal bleeding, leucorrhœa, &c. The infusion of 1 ounce to 1 pint of boiling water is taken internally in doses of a wineglassful. Externally it is used as a gargle and injection

Distinctive character—Herb 4-8 inches long, branched, with square stems, dense, oblong-ovate obtuse leaves, about 1 inch long and $\frac{1}{2}$ inch broad, usually entire, with scattered, appressed hairs. Flowers purplish blue, in a dense terminal spike, with two broad kidney-shaped acute bracts under each whorl. Upper lip of calyx with short truncate mucronate teeth. Taste, saline, faintly bitter. Odour, none.

SENEGA.

Polygala Senega, Linn.Fam *Polygalaceæ*.

Syn.—Seneka, Senega Snakeroot.

Part used—Root.

Action—Diaphoretic, diuretic, expectorant, emetic. Very useful in chronic catarrh, chronic bronchitis, asthma, and croup. Recommended as local stimulant in sore throat. The infusion of 1 ounce to 1 pint of boiling water is taken in tablespoonful to wineglassful doses.

Preparations—Powdered root Dose, 6-12 grains.
Ext. Seneg. Liq. B.P Dose, 5-15 minims Inf. Seneg.
Conc. B.P. : Dose, $\frac{1}{2}$ -1 drachm Inf Seneg Rec. B.P. :
Dose, $\frac{1}{2}$ -1 fluid ounce Tinct Seneg. B.P. Dose, $\frac{1}{2}$ -1 drachm.

Distinctive character—Root usually having a knotty crown, from which the slender stems arise, having the remains of rudimentary leaves at their base The root

is of a light yellowish grey colour, $\frac{1}{2}$ – $\frac{1}{4}$ inch thick, usually less than 3 inches long, often spirally contracted and sparingly branched, and having a keel-shaped ridge running along the main root on the 'concave side. Fracture short and brittle, showing a cleft central column. Taste, acrid and slightly acid, and recalling that of *Gaultheria*, with a characteristic, somewhat rancid odour.

SENNA (TINNEVELLY). *Cassia angustifolia*, Vahl.
(ALEXANDRIAN). *Cassia acutifolia*, Del.

Fam. Leguminosæ.

Syn.—Alexandrian Senna, *Cassia angustifolia*, Vahl.,
East Indian Senna, Tinnevelly Senna.

Parts used—Leaves, pods.

Action—Laxative, cathartic. Is generally combined with aromatics and stimulants to modify its griping effects. The following may be regarded as a good formula for making an infusion: Senna leaves 2 ounces, Ginger 1 drachm, boiling water 1 pint. Let it stand for one hour, strain through muslin and take in wineglassful doses. Alexandrian Senna Leaves and Pods are considered to have a milder and yet as certain an action as the East Indian variety, to which they are generally preferred.

Preparations—From leaves: Conf. Senn. B.P.: Dose, 1–2 drachms. Conf. Senn. et Sulphur B.P.C.: Dose, 1–2 drachms. Tinct Senn Co. B.P.C.: Dose, 2–4 drachms. Powdered leaves: Dose, 10–30 grains. From pods: Elix. Senn. B.P.C.: Dose, $\frac{1}{2}$ –1 drachm. Ext. Senn. Liq. B.P.: Dose, 10–30 minims. Inf. Senn. Rec. B.P.: Dose $\frac{1}{2}$ –2 fluid ounces. Mist. Senn. Co. B.P.: Dose, 1–2 fluid ounces. Syr. Fic. Co. B.P.C. Dose, $\frac{1}{2}$ –2 drachms. Syr. Senn B.P.: Dose, $\frac{1}{2}$ –2 drachms.

Distinctive character—Senna leaves, or more properly leaflets, are greyish green, lanceolate, unequal at the base, varying from $\frac{1}{2}$ –1 $\frac{1}{2}$ inch long, and $\frac{1}{4}$ – $\frac{1}{2}$ inch



SELF-HEAL

(See page 315)



SHEEP-SORREL

(See page 313)



SHEPHERD'S PURSE

(See page 319)



SILVERWEED

(See page 319)

broad. Those of *Cassia angustifolia* (Tinnevelly Senna) are broader near the middle, and longer in proportion than those of *Cassia acutifolia* (Alexandrian Senna) which are broadest below the midrib. The Mecca Senna of commerce, which seems to contain a mixture of both species and is often full of leafstalks and discoloured leaflets, is an inferior quality. The pods are also used. Alexandrian Senna Pods are green, $1\frac{1}{2}$ – $2\frac{1}{2}$ inches long and $\frac{3}{4}$ –1 inch broad. Indian Senna Pods are darker, narrower, only $\frac{1}{4}$ inch broad, and have the base of the style prominent on the upper edge. Taste, sweetish, but sickly. Odour, somewhat tea-like, but characteristic.

SHALLOT.

Allium Ascalonicum, Linn.

Fam. *Liliaceæ*.

Syn.—Eschallot.

Used chiefly as an ingredient in the preparation of sauces.

Distinctive character—The bulbs are compound like those of garlic, but are much smaller and milder. The bulblets are termed cloves.

SHEEP-SORREL.

Rumex Acetosella, Linn.

Fam. *Polygonaceæ*.

Syn.—Field-Sorrel.

Part used—Herb.

Action—Diuretic. The fresh plant juice is refrigerant and diaphoretic, and is of use in urinary and renal diseases. Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The stem is about 6–10 inches high. The leaves are halberd-shaped, about $1\frac{1}{2}$ inch long and $\frac{1}{2}$ – $\frac{3}{4}$ inch broad. Flowers small, greenish, becoming red when in fruit, borne in leafless whorls, the male and female flowers on different individuals. Taste, acid. Odour, none.

SHEPHERD'S-PURSE.*Capsella Bursa-pastoris*, Medic.Fam. *Cruciferae*.

Syn.—Shepherd's Sprout, Mother's Heart.

Part used—Herb.

Action—Antiscorbutic, stimulant, diuretic. Chiefly used in kidney complaints and dropsy, &c. Also useful in chronic diarrhoea. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses.

Preparation—Fluid extract Dose, $\frac{1}{4}$ –1 drachm.

Distinctive character—A common weed, with leaves irregular in character, somewhat lanceolate, and either entire or much toothed, but always recognisable by its triangular seed pods. The flowers are small and white. Taste, pungent. Odour, cress-like.

SIEGESBECKIA. *Siegesbeckia orientalis*, Linn.Fam. *Compositae*.

Part used—Plant. From Mauritius.

Action—Alterative, antisypilitic. Has been used in leprous, syphilitic, and venereal skin diseases, and contains a white crystalline body resembling salicylic acid.

Preparation—Fluid extract Dose, 10–30 minims.

Distinctive character—Stem usually about 2 feet high, branched. Leaves opposite, broadly triangular, coarsely toothed. Flowerheads small, leafy, panicled. outer row of phyllaries spatulate and twice as long as the inner, and covered with glandular pubescence. Taste and odour, slight, but characteristic

SILVERWEED. *Potentilla anserina*, LinnFam. *Rosaceae*.

Syn.—Wild Tansy.

Part used—Herb.

Action—Astringent, tonic.

Distinctive character—Leaves silvery below, often

on the upper surface also, interruptedly pinnate, with 12-15 pairs of oval, toothed segments, with minute leaflets between each pair. Flowers yellow, buttercup-like, borne singly on the slender runners. Taste, astringent. Odour, none.

SIMARUBA.

Simaruba amara, Aubl.

Fam. *Simarubaceæ*.

Syn.—Mountain Damson.

Part used—Rootbark.

Action—Tonic. Is very useful in weakened digestion, loss of appetite, and in convalescence from fevers, &c. The infusion of $\frac{1}{2}$ ounce to 1 pint of boiling water is taken in tablespoonful to wineglassful doses as required.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The bark occurs in flat, yellowish, or greyish yellow, tough, fibrous pieces, impossible to break, and usually folded, about $\frac{1}{8}$ inch thick and 2-2 $\frac{1}{2}$ inches wide. Taste, very bitter. Inodorous.

SKUNK-CABBAGE. *Symplocarpus fœtidus*, Nutt.

Fam. *Aracæ*.

Syn.—Skunkweed, Meadow Cabbage, Polecatweed, *Dracontium fœtidum*, Linn.

Part used—Root.

Action—Antispasmodic, diaphoretic, expectorant, Enters into several of the Compound Herbal Powders for fever. In small doses the powder may be mixed with honey— $\frac{1}{2}$ ounce to 4 ounces honey—and forms an efficacious remedy for asthmatic and bronchial affections, in doses of $\frac{1}{2}$ –1 teaspoonful.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Root obconical, truncate at both ends, 3-4 inches long and about 2 inches in diameter, with numerous long shrivelled roots. Often sold in transverse slices about $\frac{1}{4}$ inch thick with a grey-brown

(3 fluid ounces 183 minims) of water. Should be placed in a closed vessel and heated on a waterbath for one hour and then strained.

Distinctive character—The bark occurs in flat pieces, about 2 inches wide and 2 feet or more long, usually folded, about $\frac{1}{4}$ inch thick. It has a pinkish or faintly rusty tint, a tough, fibrous texture, and mealy fracture, and is slightly striated longitudinally. Taste, very mucilaginous. Resembling lovage or fœnugreek in odour.

SMARTWEED. *Polygonum Hydropter*, Linn.
Fam. *Polygonaceæ*.

Syn.—Water Pepper, Arsesmart, Biting Persicaria, Pepperwort.

Parts used—Herb, leaves.

Action—Stimulant, diuretic, emmenagogue. Used principally for obstructions of the menses, amenorrhœa, &c. The infusion, made by pouring 1 pint of cold water upon 1 ounce of leaves, is taken in wineglassful doses.

Preparations—Fluid extract: Dose, 1-2 drachms. Tincture: Dose, 2-4 drachms.

Distinctive character—Stem 1-2 feet high. Leaves, lanceolate, alternate, entire. Inflorescence a drooping, slender, interrupted raceme of small greenish flowers. Leaves with a pungent biting taste. Odour, none.

SNAKE ROOT. *Aristolochia reticulata*, Nutt.
Fam. *Aristolochiaceæ*.

Syn.—*Aristolochia reticulata*, Nutt., Red River or Texan Snakeroot.

Part used—Root.

Action—Stimulant, diaphoretic, anodyne, antispasmodic, tonic, nervine. Is a valuable remedy in all cases of fever, especially in typhoid, and will be found to agree with the digestive organs when Peruvian Bark

cannot be taken. It may be employed with advantage whenever it is desirable to promote perspiration and in bilious complaints. The infusion of $\frac{1}{2}$ ounce to 1 pint of boiling water is taken in 1-2 tablespoonful doses.

Preparations—Inf. Serpent. Conc. B.P.C.: Dose, $\frac{1}{2}$ -1 drachm. Tinct. Serpent. B.P.C.: Dose, $\frac{1}{2}$ -1 drachm. Powdered root: Dose, $\frac{2}{3}$ -1 $\frac{1}{2}$ grains. Liquid extract: Dose, $\frac{1}{2}$ -1 drachm.

Distinctive character—Rhizome about 1 inch long

previous years. Taste, aromatic camphoraceous, bitterish. Odour, aromatic.

Snake Root is frequently referred to as Virginian Snake Root, although strictly speaking this name applies only to *A. Serpenteria*, Linn., which is regarded as a substitute for Texan Snake Root. It is very similar in appearance to the Texan root, with the difference that the thin rootlets are matted.

SOAP TREE.

Quillaia Saponaria, Molina.

Fam. *Rosaceæ*.

Syn.—Quillaia, Soap Bark, Panama Bark.

Part used—Bark.

Action—Expectorant, diuretic, detergent. Used to loosen cough in chronic bronchitis and pulmonary complaints. The infusion of $\frac{1}{2}$ ounce of bark in 1 pint of boiling water is taken in tablespoonful doses or more as required. Used externally as a cleansing application to cutaneous ulcers and eruptions. A heading for beers is made from it.

Preparations—Ext. Quill. Liq. B.P.C. Tinct. Quill. B.P.: Dose, $\frac{1}{2}$ -1 drachm. Powdered bark: Dose, 1-3 grains.

Distinctive character—Imported in large flat pieces 1-2 feet long or more, 4-6 inches broad, and $\frac{1}{4}$ - $\frac{1}{2}$ inch

thick. The outer surface is pale yellowish white with irregular patches of imperfectly removed reddish outer bark. The inner surface is smooth. The fracture splintery in layers. Under a lens, glittering solitary prismatic crystals of calcium oxalate are visible. The powder, when the bark is broken, causes violent sneezing. Taste, acrid. Odour, none.

A variety of the bark, apparently from a different species of the same genus, has the brown patches covering most of the bark, and marked with oblique lines. This kind is much less active, containing only half as much saponin as the genuine.

SOAPWORT.

Saponaria officinalis, Linn.

Fam. *Caryophyllaceæ*.

Syn.—Soaproot, Bouncing Bet, Fuller's Herb.

Parts used—Leaves, root.

Action—Alterative, detergent. Used as a remedy for venereal diseases, scrofula, and skin diseases generally. Is said to be superior to Sarsaparilla. A decoction of 2 ounces boiled in 1 pint of water is taken in doses of 1-2 tablespoonfuls three to four times a day. The root is used for producing a head on beers.

Preparation—Fluid extract : Dose, $\frac{1}{4}$ -1 drachm.

Distinctive character—The leaves are opposite, entire, and smooth, elliptical-lanceolate, about 2 inches long and $\frac{3}{4}$ inch broad, the longitudinal nerves curved towards the apex of the leaf, greyish green when dried. Flowers pinkish. Taste, bitter and acrid. Odour, none.

SOAPWORT ROOT, EGYPTIAN.

Gypsophila Struthium, Linn.

Fam. *Caryophyllaceæ*.

Distinctive character—The root occurs in pieces, 4-6 inches long, and from $\frac{1}{2}$ -1 $\frac{1}{2}$ inch in diameter, of a yellowish white colour, longitudinally furrowed exter-



SMARTWEED

(See page 322)



SOAPWORT

(See page 324)



SORREL

(See page 326)



SPEARMINT

(See page 328)

nally, with paler spots where the cortex has been rubbed. The transverse section shows a radiate and concentric structure. Taste, bitter, then very acrid. Odour, feeble. Powder very irritating to the nostrils. A smaller root, but with similar structures and properties, comes from Spain.

SOLOMON'S SEAL.

Polygonatum multiflorum, Allem.

Fam. *Liliaceæ*.

Part used—Root.

Action—Astringent, demulcent, tonic. Useful in female weakness, fluor albus, &c. Combined with other remedies, it may be given in pulmonary complaints, consumption, and bleeding of lungs. The powdered root also makes an excellent poultice for bruises, piles, inflammations, and tumours. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses. Also used externally as an injection.

Distinctive character—Rhizome cylindrical, somewhat flattened above, with circular stem scars at intervals, about $\frac{1}{2}$ inch in diameter and 2–3 inches or more long, with transverse ridges. Fracture short, waxy, yellowish. Taste, mucilaginous, sweetish, then bitter and acrid. Odour, none.

SORREL.

Rumex acetosa, Linn.

Fam. *Polygonaceæ*.

Part used—Leaves.

Action—Refrigerant, diuretic. May be used as a cooling drink in all febrile diseases. The leaves are occasionally eaten as a salad or boiled as spinach. In cutaneous tumours the following preparation has been used: Burnt Alum 1 drachm, Citric Acid 2 drachms, inspissated juice of Sorrel 1 ounce, water to 10 ounces; applied as a paint.

Distinctive character—Leaves oblong, arrow-shaped below, rather firm, with a broad-toothed, membranous, stipular sheath round the stem at its base. Taste, acid and astringent. Odour, none.

SOUTHERNWOOD. *Artemisia Abrotanum*, Linn.
Fam. *Compositæ*.

Syn.—Old Man, Lad's Love.

Part used—Herb.

Action—Stimulant, emmenagogue, antiseptic, detergent. This well-known garden plant is used to promote the flow of the menses. For worms in children it is given in teaspoonful doses of the powder in treacle morning and evening. The infusion of 1 ounce of herb to 1 pint of boiling water is taken in wineglassful doses.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Leaves greyish green, stalked, twice pinnate, with very slender, linear, pointed segments, covered with minute white pubescence. Taste, bitterish, aromatic. Odour, sweet, characteristic.

SOYA BEANS. *Glycine Soja*, Sieb. & Zucc.
Fam. *Leguminosæ*.

Syn.—Soy Beans, Soja.

Parts used—Oil, flour.

Action—The beans are chiefly used to produce an oil which is edible and which is also used for soap making. The flour which is left after the oil has been expressed contains proteins and carbohydrates but no starch. The flour has, therefore, been used to manufacture food products, more especially for those suffering from diabetes. There are undoubted possibilities of developing the use of Soya Flour as a food. It has for long been used as an article of diet in China and Japan, and in America it has been recommended as a children's food in summer diarrhoea and similar complaints.

Distinctive character—The seeds are produced from hairy legumes containing from two to five. The seeds themselves vary in colour from pale yellow to black. The cotyledons are surrounded by a leathery skin. Odour, slight. Taste, oily.

SPEARMINT.

Mentha viridis, Linn.

Fam. *Labiatae*.

Syn.—Mackerel Mint, *Mentha spicata*, *Mentha crispa*, Peamint, Yerba Buena.

Parts used—Herb, oil.

Action—Stimulant, carminative, antispasmodic. This herb is added to many compounds on account of its carminative properties and its pleasant taste. The infusion of 1 ounce in 1 pint of boiling water is taken in doses of a wineglassful or less as may be required. For infantile troubles generally the sweetened infusion is an excellent remedy.

Preparations—Liquid extract : Dose, $\frac{1}{4}$ –1 drachm. Oil of Spearmint : Dose, 1–3 minims. Aq. Menth. Vir. Conc. B.P.C. : Dose, 5–15 minims. Aq. Menth. Vir. Dest. B.P.C. : Dose, $\frac{1}{4}$ –1 fluid ounce.

Distinctive character—The true Spearmint has sessile, elliptic-oblong, sharply-serrate leaves, smooth and strongly ribbed below. Taste and odour, characteristic. Flowers in axillary whorls approximated so as to form a tapering spike. In *Mentha cardiaca*, J. G. Baker, which is sometimes sold as Spearmint, the leaves are smaller, and the whorls of flowers are distant and leafy.

SPEEDWELL.

Veronica officinalis, Linn.

Fam. *Scrophulariaceae*.

Syn.—Bird's-Eye, Cat's-Eye.

Part used—Herb.

Action—Alterative, expectorant, diuretic, Useful in

coughs, catarrhs, &c. It promotes menstruation and is a simple and effective remedy in skin diseases.

Distinctive character—Stems slender and shortly hairy. Leaves opposite, oval, obtuse, serrate, shortly stalked, $\frac{1}{2}$ – $\frac{3}{4}$ inch long, and $\frac{1}{4}$ – $\frac{1}{2}$ inch broad. Flowers small, blue, in axillary spikes. Taste, bitter and astringent. Odour, slightly tea-like when dry.

Speedwell is also referred to by some Welsh authors as Fluellin.

This plant was formerly used as a substitute for Tea, and was believed to strengthen the frame, and was called by the French Thé de l'Europe.

SPIKENARD, AMERICAN. *Aralla racemosa*, Linn.
Fam. *Araliaceæ*.

Syn.—Spignet, Pettymorrel, Indian Spikenard.

Part used—Root

Action—Alterative, diaphoretic. Used in rheumatic, pulmonary, syphilitic, and cutaneous disorders. The infusion of $\frac{1}{2}$ ounce in 1 pint of boiling water is taken in wineglassful doses.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Rhizome oblique, 4–6 inches long, with prominent concave stem scars, about 1 inch broad in diameter. Roots about 1 inch thick at the base, pale, brown wrinkled. Fracture short and whitish. Taste, aromatic. Odour, similar.

SQUAW-VINE. *Mitella repens*, Linn.
Fam. *Ericaceæ*.

Syn.—Partridgeberry, Checkerberry, Winter Clover, Deerberry.

Part used—Herb.

Action—Parturient, diuretic, astringent. Used in dropsy, diarrhoea, and suppression of urine. Has been found highly beneficial in uterine derangements, such

as amenorrhœa, dysmenorrhœa, menorrhagia, &c. The decoction of 2 ounces in 1 pint of water is taken in wine-glassful doses.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stem slender, with a deep furrow on one side, creeping. Leaves opposite, evergreen, nearly sessile, $\frac{3}{8}$ inch long and $\frac{1}{2}$ inch broad, roundish, broadly ovate, and smooth. Flowers in pairs, corolla four-lobed, bearded inside, pinkish. Fruit baccate, red, four-seeded. Taste, astringent, bitter. Odour, none.

SQUILL.

Urginea Scilla, Steinh.

Fam. *Liliaceæ*.

Syn.—*Scilla maritima*, Linn.

Part used—Bulbs. Grown near the sea.

Action—Diuretic, expectorant, cathartic, emetic. Is useful in small doses to relieve irritation of mucous surfaces and check excessive secretions. Used extensively in dropsy not due to organic changes. Also as an expectorant in catarrh, asthma, pneumonia, cough, and chronic bronchial affections.

Preparations—Powdered bulb : Dose, 1–3 grains. Acet. Scill. B.P. : Dose, 10–30 minims. Ext. Scill. Liq. B.P.C. : Dose, 1–3 minims. Tinct. Diamorph. et Scill. B.P.C. : Dose, $\frac{1}{2}$ –1 drachm. Tinct. Scill. Co. B.P.C. : Dose, $\frac{1}{2}$ –1 drachm. Oxymel Scill. B.P. : Dose, $\frac{1}{2}$ –1 drachm. Syr. Scill. B.P. : Dose, $\frac{1}{2}$ –1 drachm. Tinct. Scill. B.P. : Dose, 5–30 minims. Squill also enters into the composition of several pills in the B.P.C.

Distinctive character—The large bulbous root is usually cut up, and the dried curved segments, met with in commerce, are about 1½–2 inches long and $\frac{1}{8}$ – $\frac{1}{4}$ inch wide, yellowish white, tough, and often flexible. Fracture short. Taste, bitterish and acrid. The powder rapidly attracts moisture, and forms a solid mass unless air is excluded. Two varieties are used—White bulbs

collected in Malta and Sicily and Red Squills collected in Algeria, which are generally used in France. The latter is also used as a rat poison.

Urginea, obtained from *Urginea indica*, or *U. Maritima*, a smaller bulb than the European. Is used in India and the East in place of European Squills and has the same properties.

Indian Squills are cut into slices and dried. It occurs in curved or sickle-shaped pieces generally connected, several together.

ST. JOHN'S WORT. *Hypericum perforatum*, Linn.

Part used—Herb.

Fam. *Hypericaceæ*.

Action—Slightly astringent, expectorant, diuretic. Useful in coughs, colds, consumption, and all lung diseases generally. It is highly esteemed in affections of the urinary passages. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses. The fresh flowers infused in Olive Oil make the Oil of St. John's Wort, a healing application to wounds, sores, ulcers, and swellings.

Preparation—Fluid extract. Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stem angular, 1–1½ foot high. Leaves opposite, sessile, oval, and oblong, with small black dots on the edges, and numerous transparent, round oil glands immersed in the surface. The name *perforatum* is due to the number of small hole-like dots in the leaf. Flowers yellow, with numerous stamens arranged in three bundles, and the ovary has three dark red styles. Taste, aromatic, bitter, and astringent.

STAR-ANISE.

Illicium verum, Hook. f.

Fam. *Magnoliaceæ*

Syn.—Chinese Anise, Star-Anise Fruits, Badiana, *Anisa stellata*.

Part used—Seeds Used in China for the distillation of Star Aniseed Oil.

Action—Stimulant, carminative, diuretic. For uses see Anise, which it resembles very much in properties and action. The dose of the powdered seeds is from 10–20 grains, of the oil 1–10 drops.

Distinctive character—Fruits about 1 inch in diameter, formed of eight boat-shaped carpels, open when ripe, each containing one smooth, oval, polished brown seed. Pericarp brown, wrinkled below, and beaked at the apex. Taste, sweet, aromatic, fennel or anise-like. The odour is similar.

A spurious kind, the fruit *Illicium religiosum*, Sieb. and Zucc., with similar shape but rather shorter, with a turpentiney taste, imported from Japan, is sometimes met with. It possesses poisonous properties. The oil resembles Oil of Aniseed, and can only be distinguished by chemical tests.

STAVESACRE. *Delphinium Staphisagria*, Linn.
Fam. *Ranunculaceæ*.

Syn.—Starvesacre, Staphisagris.

Part used—Seeds.

Action—Vermifuge and vermin destroying. Used as lotion, wash, or ointment for destroying lice in hair, &c.

Preparations—Lot. Staphisag. B.P.C. Ung. Staphisag. B.P.C.

Distinctive character—The seeds are greyish black, wrinkled and pitted, more or less triangular, or four-sided, with the back convex, about $\frac{3}{4}$ inch long and rather less in width, ten weighing about 6 grains. Albumen oily. Taste, bitter and tingling. Odour, none.

STOCKHOLM TAR. *Pinus sylvestris*, Linn.
(And other species.) Fam. *Pinaceæ*.

Syn.—Pix Liquida, Tar.

Action—Antiseptic, expectorant. Administered in cases of obstinate bronchial coughs and consumption.



SPEEDWELL

(See page 318)



ST. JOHN'S WORT

(See page 331)



STRAMONIUM

(See page 315)



STRAWBERRY

(See page 337)

It is also used externally in the form of ointment for eczema and other skin diseases. Dose, 2-10 grains.

Preparations—Syr. Pini Alb. Co. B.P.C. : Dose, 1-2 drachms. Syr. Pic. Liq. B.P.C. : Dose, 1-2 drachms. Ung. Pic. Liq. B.P.C. Ung. Sulph. Co. B.P.C.

STONECROP, VIRGINIA.

Penthorum sedoides, Linn.

Fam. *Crassulaceæ*.

Syn.—Ditch Stonecrop, *Penthorum*.

Part used—Herb.

Action—Astringent, laxative, demulcent. Has been employed successfully in the treatment of diarrhœa, hæmorrhoids, cholera infantum, &c. It is of value in catarrhal gastric disorders in general. This drug is of undoubted power, and deserves a careful study.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ -1 drachm.

Distinctive character—Stem about 1 foot long. Leaves alternate, short-stalked, 2-3 inches long and one-third as broad, lanceolate, acute, serrate, smooth, and thin. Flowers small, greenish, in rows along the upper sides of the branches of the terminal cyme, five-parted, with 10 stamens. Taste, slightly astringent. Odour, characteristic.

STONE ROOT.

Collinsonia canadensis, Linn.

Fam. *Labiataæ*.

Syn.—Rich Weed, Rich Leaf, Knob Root, Knob Weed, Horsebalm, Horseweed.

Part used—Root.

Action—Stomachic, diuretic, tonic. Is regarded by many as a certain remedy in cases of gravel, stone in the bladder, piles, &c. As a general diuretic it is undoubtedly of great value. It is largely used among American veterinary surgeons as a diuretic. As a gargle use 1 part of fluid extract to 3 of water.

Preparations—Fluid extract: Dose, 15–60 drops.
 Collinsonin: Dose, 2–4 grains. Tinct. Collinson. B.P.C.:
 Dose, $\frac{1}{2}$ –2 drachms.

Distinctive character—Rhizome brown-grey, about 4 inches long, with knotty, short, irregular branches, and numerous shallow stem scars, very hard, with a thin bark, irregular woody wedges, and numerous brittle rootlets. Taste, bitterish, disagreeable. Odour, none

STORAX.

Liquidambar orientalis, Mill.

Fam. *Hamamelidaceæ*

Syn.—Styrax, Prepared Storax, Liquid Storax, Balsam Styracis.

Part used—Balsam. Imported from Asiatic Turkey.

Action—Expectorant, stimulant. Like most balsams it acts very beneficially upon the mucous membranes, and has been used internally in asthma, bronchitis, catarrh, cough, and pulmonary affections, externally in gonorrhœa, gleet, and leucorrhœa. The ointment forms a valuable application in a number of cutaneous disorders such as scabies, ringworm, &c. The dose is from 10–30 minims.

Distinctive character—A viscid, treacly liquid, greyish brown, opaque, heavier than water. In the early summer the tree is beaten, causing a flow of balsam. This is soaked up by the bark, which is boiled in water and pressed. This forms the Storax of commerce, which always contains water and pieces of vegetable fibre. This when warmed and strained forms Styrax (water strained) or, dissolved in alcohol filtered and evaporated, Styrax Preparata of the British Pharmacopœia. The bruised bark when merely ground is known as Styrax Calamitus. Taste, sharply pungent, burning, and aromatic. Odour, recalling that of hyacinth

STRAMONIUM,*Datura Stramonium*, Linn.Fam. *Solanaceæ*.

Syn.—Thorn Apple, Jamestown Weed, Jimson Weed, Stinkweed.

Parts used—Leaves, seeds.

Action—Antispasmodic, anodyne, narcotic. It acts similarly to Belladonna, and does not constipate. The inhalation of the smoke from the burning leaves is recommended for relieving attacks of asthma. It is a better cough remedy than opium, as it does not arrest secretions.

Preparations—Ext. Stramon. B.P.C.: Dose, $\frac{1}{4}$ –1 grain. Ext. Stramon. Liq. B.P.C.: Dose, $\frac{1}{4}$ –3 minims. Mist. Lobel. et Stramon. Co. B.P.C.: Dose, $\frac{1}{4}$ –1 fluid ounce. Pulv. Lobel. Co. B.P.C. Pulv. Stramon. Co. B.P.C. Tinct. Stramon. B.P.: Dose, 5–30 minims. Ung. Stramon. B.P.C. Powdered Stramonium: Dose, $\frac{1}{4}$ –3 grains.

Distinctive character—Stem widely forked or ternate. Leaves long-stalked, unequal at the base, somewhat fleshy, ovate, sinuate-dentate, with large, irregular, pointed teeth, glabrous when mature. Flowers white, tubular, with five teeth, off with upper part of bitter and saline. Odor agreeable, but tea-like when dried. The under surface of the leaf, when dry, is minutely wrinkled. Seeds black, kidney-shaped, flat, about $\frac{1}{2}$ inch long and $\frac{1}{4}$ inch thick, reticulated and finely pitted, the embryo coiled in white oily albumen, parallel to the face of the seed.

Datura Tatula is a variety of *Datura Stramonium*, with violet corolla and purple veins. The plant is extensively cultivated in Hungary, and is generally greener and brighter than *Datura Stramonium*.

Datura Fastuosa, or Metel, and *Datura Innoxia* are

grown in India, where they have acquired a bad reputation as a secret poison used by criminals. The leaves contain from .2 to .5 per cent. of alkaloids, chiefly scopolamine (hyoscyne) and atropine, which varies according to the climatic conditions. Crops grown in England during a dry summer have exceeded the average alkaloidal strength of Italian or Hungarian plants, but generally the warmer climates produce the best results.

STRAWBERRY.

Fragaria vesca, Linn.

Fam. *Rosaceæ*.

Part used—Leaves.

Action—Mildly astringent, diuretic. Used in children's diarrhoea and affections of the urinary organs. The infusion of 1 ounce to 1 pint of boiling water is taken in doses from a teaspoonful to a wineglassful.

Distinctive character—Leaves long-stalked, trifoliate, leaflets obovate, shortly stalked, paler beneath, 2-3 inches long, and 2-2½ inches broad, with large serrate teeth, feather-veined, the veins erect, each ending in a tooth. Taste, astringent. Odour, feeble.

STROPHANTHUS.

Strophanthus Kombe, Oliv.

Fam. *Apocynaceæ*.

Part used—Seeds. From Eastern Tropical Africa.

Action—Cardiac tonic. Used in muscular debility of heart and cardiac pains with dyspnoea. This drug should be used very cautiously owing to its great variation in strength. Used in Africa as an arrow poison.

Preparations—Ext. Strophanth. B.P.C. Tinct. Strophanth. B.P.: Dose, 2-5 minims

Distinctive character—Seeds greenish brown, ¼ inch long and ⅓ inch broad, with appressed hairs, elliptical, furnished with a long awn. A section of the seed gives a deep green colour with a mixture of strong sulphuric

acid 8 parts, and water 2 parts, recently made. The seeds of *S. hispidus*, D.C., are smaller and brown, but give the same reaction. Very poisonous; should only be used under medical direction.

SUMACH, SMOOTH.

Rhus glabra, Linn.

Fam. *Anacardiaceæ*.

Syn.—Upland Sumach, Pennsylvania Sumach.

Parts used—Bark, berries.

Action—Astringent, alterative, tonic. Berries: refrigerant, diuretic. The bark is useful in diarrhœa, dysentery, gonorrhœa, and leucorrhœa. The decoction of 1 ounce to 1 pint of water is used in doses of a wineglassful or more internally, externally as an application or lotion. The berries are used in bowel complaints, febrile diseases, &c. An infusion of 1 ounce of berries in 1 pint of boiling water is taken in wineglassful doses.

Preparations—Fluid extract, bark: Dose, 1–2 drachms. Fluid extract, berries: Dose, 1–2 drachms. Rhusin: Dose, 1–2 grains. Powdered berries: Dose, 10–30 grains.

Distinctive character—The rootbark occurs in quilled pieces about 2 inches long and $\frac{1}{8}$ – $\frac{1}{4}$ inch in diameter, dull reddish brown, with scattered transversely-oval lenticels. Fracture whitish or brown, with transverse rows of minute blackish, linear oil cells. Taste, gummy, astringent. Odour, none.

SUMACH, SWEET.

Rhus aromatica, Ait.

Fam. *Anacardiaceæ*.

Syn.—Fragrant Sumach.

Part used—Bark of root.

Action—Astringent, diuretic. Largely used in diabetes and in the treatment of excessive discharges from kidneys and bladder. Valuable in treatment of incontinence of urine in children and aged persons.

Also in leucorrhœa, diarrhœa, and dysentery. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses. Externally may also be used as an injection.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The rootbark occurs in small quilled pieces about $\frac{1}{4}$ inch in diameter and 2 inches or more long, of a dirty brown colour externally, with scattered transversely oval red-brown lenticels. Transverse fracture short, with radiate rows of minute dark, flattened oil cells. Taste, mucilaginous. Odour, none.

SUMBUL.

Ferula Sumbul, Hook. f.

(And other species.) Fam. *Umbelliferae*.

Syn.—Musk Root.

Part used—Root. Imported from Asiatic Russia.

Action—Nerve stimulant, antispasmodic, tonic. Has been found very useful in nervous diseases, in low typhus fevers, asthma, bronchitis, &c. Also employed in amenorrhœa, hysteria, and other allied female disorders.

Preparations—Fluid extract. Dose, 10–60 drops.
Solid extract U.S.P. : Dose, 4 grains. Tinct Sumbul.
B.P.C. : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The root occurs in commerce in transverse slices, about 1–2 inches, rarely up to 5 inches in diameter, and 1 inch or more thick, the bristling crown of the root and the tapering lower parts of the root also occur, externally covered with a thin, papery dark grey-brown bark. The transverse section is dirty brown and resinous, marbled with white. The white part is seen to consist of a spongy, fibrous, mealy tissue. Taste, bitter and aromatic. Odour, musky. The root is represented in commerce, at present, by that of *Ferula suaveolens*.

SUNDEW.*Drosera rotundifolia*, Linn.Fam. *Droseraceæ*.

Syn.—Roundleaved Sundew, Dewplant, Red Rot.

Part used—Herb.

Action—Pectoral, expectorant, demulcent, anti-asthmatic. Exerts a peculiar effect upon the respiratory organs. In small doses it is almost a specific in dry, spasmodic, and tickling coughs, also in whooping cough, for which it is considered a good prophylactic. An infusion of $\frac{1}{2}$ ounce in 1 pint of boiling water may be taken in tablespoonful doses as required. The fresh juice has been used as an application to warts and corns.

Preparations—Fluid extract: Dose, 10–20 drops. Solid extract (alc.): Dose, 2–5 grains.

Distinctive character—Leaves all radical, six to ten in number, reddish, orbicular, fleshy, covered with stalked sticky glands. Flowering stem leafless, about 4 inches high, bearing small white flowers. An allied species, *D. longifolia*, Linn., has larger, linear-oblong leaves.

SUNFLOWER.*Helianthus annuus*, Linn.Fam. *Compositæ*.

Syn.—Helianthus.

Part used—Seeds.

Action—Diuretic, expectorant. This drug has been successfully used in bronchial, laryngeal, and pulmonary affections, coughs, and colds. The following preparation has been found efficacious: Sunflower seeds, 2 ounces, 1 quart of water; boil down to 12 ounces and strain, add 6 ounces of good Hollands gin and 6 ounces of sugar. The dose is 1–2 teaspoonfuls three to four times a day. An oil contained in the seeds has also been found to possess similar properties, and may be given in doses of 10–15 drops, or more, two to three times a day.

Distinctive character—Seeds, or more correctly

fruits, opaque white in colour, obovate or shortly wedge-shaped, broader and truncate at the apex, but convex, compressed on two sides which meet and form two sharp margins. The black variety has a black glossy surface and is rather larger and thinner as a rule, but otherwise does not differ from the white variety, which sometimes has black longitudinal stripes. Seed white, oily. Taste, nutty. Odour, none.

SWAMP-MILKWEED. *Asclepias incarnata*, Linn
Fam. *Asclepiadaceæ*.

Syn.—Swamp-Silkweed, Rose-coloured Silkweed.

Part used—Root.

Action—Emetic, cathartic. Has been recommended in rheumatic, asthmatic, and catarrhal affections, and as a vermifuge. It acts as a good stomachic and a quick diuretic, and is taken as an infusion, hot or cold, made of $\frac{1}{2}$ ounce of root in powder to 1 pint of boiling water. The dose of the powder is from 15–60 grains

Distinctive character—Rhizome about 1 inch in diameter, irregularly globular or oblong, yellowish brown, hard, knotty, with a thin bark, tough whitish wood, and rather thick central pith. Rootlets about 4 inches long, light brown. Taste, sweetish, acrid, and bitter. Inodorous.

TAG ALDER.

Alnus serrulata, Willd.

Fam. *Betulaceæ*.

Syn.—Common Alder, Smooth Alder, Red Alder, *Alnus rubra*, Desf.

Part used—Bark.

Action—Tonic, alternative, astringent, emetic. Used in syphilitic and scrofulous conditions. Also of importance in indigestion and dyspepsia caused by debility of stomach. Where diarrhœa is caused by the same

complaints it will be found of great utility. The infusion of 1 ounce of bark in 1 pint of boiling water is taken in wineglassful doses.

Preparations—Fluid extract: Dose, $\frac{1}{2}$ –1 drachm. Alumn: Dose, 4–10 grains.

Distinctive character—Bark blackish grey, with small corky warts, inner surface orange-brown, striated. Fracture uneven, but not fibrous. Taste, astringent and somewhat bitter. Almost odourless.

TAMARAC.

Larix Americana, Michx.

Fam. *Coniferae*.

Syn.—American Larch, Black Larch, Hackmetack, *Pinus pendula*, Salisb.

Part used—Bark.

Action—Alterative, diuretic, laxative. Recommended in jaundice, obstructions of liver, rheumatism, and cutaneous disorders. The decoction of the bark, combined with Spearmint, Juniper, Horseradish, &c., taken in wineglassful doses, has proved valuable in dropsy. Externally it has been used in piles, menorrhagia, dysmenorrhœa, &c.

Distinctive character—In dull purplish brown fragments, about 1–2 inches broad and long, with irregular depressions on the outer surface, and smooth, finely striated on the inner. Fracture shortly fibrous and laminate. Taste, mucilaginous, astringent, and faintly terebinthenous. Odour, none.

TAMARINDS.

Tamarindus Indica, Linn.

Fam. *Leguminosæ*.

Syn.—Tamarind Fruit, Tamarind Pulp, *Tamarindus officinalis*, Hook.

Parts used—Fruit, pulp. From West and East Indies.



SUNDEW

(See page 340)



TANSY

(See page 311)



THYME, WILD

(See page 317)



TOAD FLAX, YELLOW

(See page 317)

Action—Nutritive, refrigerant, laxative. These form a part of the official confection of Senna, but they may be used equally well by themselves in doses of 2-4 drachms. In smaller quantities and diluted with water they form an agreeable refrigerating drink in febrile diseases. One ounce of the pulp boiled in 1 pint of milk and strained forms Tamarind Whey.

Distinctive character—West Indian Tamarinds consist of the fruits, after removal of the pericarp, preserved in syrup, and are the kind chiefly used in medicine. East Indian Tamarinds arrive without being preserved in syrup, but with the pericarp removed. Egyptian Tamarinds arrive pressed into bun-shaped cakes. The two last varieties are used for sauces, chutney, &c.

TANSY.

Tanacetum vulgare, Linn.

Fam. *Compositæ*.

Part used—Herb.

Action—Anthelmintic, tonic, emmenagogue. Largely used for expelling worms in children. Also valuable in female disorders, such as hysteria, nausea, &c., and in kidney weakness. The infusion of 1 ounce to 1 pint of boiling water should be taken in teacupful doses night and morning, fasting, for worms. In other complaints, a wineglassful repeated frequently.

Preparations—Fluid extract : Dose, $\frac{1}{2}$ -2 drachms. Solid extract : Dose, 5-10 grains.

Distinctive character—Stem with alternate, oblong leaves, about 6-8 inches long, and about 4 inches wide, deeply cut in a pinnate manner, dark green, with about 12 pointed, serrate segments on either side, and a terminal one, attached to a toothed midrib or rachis. Taste, bitter and aromatic. Odour, strong and characteristic, disagreeable.

TAPIOCA.

Jatropha Manihot, Linn.Fam. *Euphorbiaceæ*.

Syn.—*Manihot*, Mandioc, Tapioca Meal, Brazilian Arrowroot, Cassava Starch, *Manihot utilissima*, Pohl, *Janipha Manihot*, Kunth.

Part used—Rootstarch.

Action—Nutritive, demulcent. It makes an excellent article of diet for infants and invalids, and may be sweetened or used in combination with fruits, preserves, wines, or spices

Distinctive character—Tapioca, like sago, is often prepared from potato starch. Under the microscope, the genuine is easily distinguished, especially in the form of meal, by the truncate muller-shaped starch grains, with a central hilum.

TEA.

Camellia sinensis, Linn.Fam. *Theaceæ*.

Syn.—*Thea Chinensis*, Sims, *Camellia theifera*, Griff.

Part used—Leaves. Cultivated in Ceylon, Assam, Java, China, &c.

Action—Stimulant, astringent. Tea is perhaps the most important article in the domestic economy, where the freshly-made infusion forms the beverage at one or more meals during the day. Its general effect is stimulating, and it also acts as a nerve sedative and frequently relieves headache. Occasionally it causes unpleasant nervous and digestive disturbances

Distinctive character—An evergreen shrub grown in the hills. The leaf-bud, together with two or three youngest leaves, are collected, and allowed to wither. They are then rolled and fermented, when the colour changes from green to black; part of the tannin is oxidised, and traces of volatile oil are produced. Green Tea is obtained by drying over a fire, in which case the tannin is not oxidised and the leaves retain their green colour. The principal constituents are Caffein and Tannin.

THUJA.*Thuja occidentalis*, Linn.Fam. *Coniferae*.

Syn.—Arbor Vitæ, Yellow Cedar, Tree of Life, False White Cedar.

Parts used—Leaves, tops.

Action—Anthelmintic, irritant, expectorant, emmenagogue. Recommended in chronic coughs, fevers, gout, amenorrhœa, &c. It is also used as an outward application for the removal of warts and fungoid growths. The infusion of 1 ounce in 1 pint of boiling water is taken internally in tablespoonful to wineglassful doses; also used externally as a lotion or injection.

Preparation—Fluid extract: Dose, $\frac{1}{3}$ –1 drachm.

Distinctive character—The spreading, flat, fan-shaped, pinnate branches are furnished with scale-like leaves so closely imbricated and appressed that they are easily overlooked. They are opposite, broadly awl-shaped, the points projecting more on the stems than on the branchlets. Taste, bitter and camphoraceous. Odour, recalling strawberries and juniper, characteristic, not agreeable.

THYME.*Thymus vulgaris*, Linn.Fam. *Labiatae*.

Syn.—Garden or Common Thyme, Tomillo.

Part used—Herb.

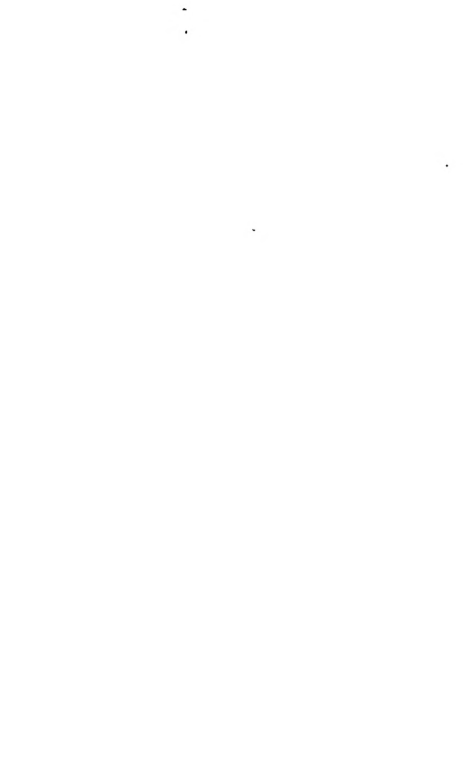
Action—Tonic, antiseptic, antispasmodic. Generally used in combination with other remedies. The infusion of 1 ounce in 1 pint of boiling water is taken in doses of a wineglassful repeated frequently.

Preparations—Elix. Thym. B.P.C.: Dose, 1–2 drachms. Ext. Thym. Liq. B.P.C.: Dose, 10–60 minims. Linct. Diamorph. et Thym. B.P.C.: Dose, $\frac{1}{2}$ –1 drachm. Oil. Dose, 1–5 minims.

Distinctive character—Stems 4–8 inches high, with opposite, small, elliptical, greenish grey, shortly-stalked



TOAD FLAX
Linaria vulgaris



leaves, about $\frac{1}{2}$ inch long and $\frac{1}{8}$ inch broad, reflexed at the margin. Taste and odour aromatic.

The garden variety known as Lemon Thyme has a lemon flavour as well as that of Thyme proper, and differs in the rather broader leaves not recurved at the margin, and is referred by botanists to the next species as var. *citriodorus*.

THYME, WILD.

Thymus Serpyllum, Linn.
Fam. *Labiatae*.

Syn.—Mother of Thyme, Serpyllum.

Part used—Herb.

Action—Antispasmodic, carminative, tonic. Favourable results have been obtained in convulsive coughs, whooping coughs, catarrh, and sore throat from the use of this herb. The infusion should be given. It is prepared with 1 ounce of herb to 1 pint of boiling water, sweetened with sugar or honey and made demulcent by Linseed or Acacia. This is given in doses of 1 or more tablespoonfuls several times daily.

Distinctive character—Plant resembling the last, but the leaves are $\frac{1}{2}$ inch broad, tapering below, green, ciliate at the base, not recurved at the margins, and have the veins prominent on the under surface. The odour is weaker than that of *Thymus vulgaris*.

TOAD FLAX, YELLOW.

Linaria vulgaris, Mill.
Fam. *Scrophulariaceae*.

Syn.—Flaxweed, Pennywort, Butter and Eggs

Part used—Herb.

Action—Astringent, hepatic, detergent. Is recommended as an alterative in jaundice, liver and skin diseases, and scrofula. An ointment made from the fresh plant forms a good application for piles. An infusion of 1 ounce to 1 pint of water is taken in the usual way.

Description—Pale yellow flowers, mouth closed by deep orange lower lip, grow in numbers crowded together at end of stem. Stem upright 1-2 feet high, branches but slightly. Leaves many, grass-like, narrow, taper to a point, smooth pale bluish tint.

In some books this is called Fluellin, see page 140.

TOBACCO.

Nicotiana Tabacum, Linn.

Fam. *Solanaceæ*.

Syn.—Leaf Tobacco, Tobacco Leaf, Tabacca.

Part used—Leaves.

Action—Narcotic, sedative, emetic. In the employment of Tobacco as a medicinal agent much care should be exercised, as it produces great depression, emesis, and convulsions, sometimes by very moderate doses. Internally it is for this reason seldom used. As an ointment, made by simmering the leaves in lard, it has been employed in curing old ulcers and painful tumours. The leaves were official in B.P. 1885.

Distinctive character—Several species are employed to yield tobacco. *N. Tabacum* yields Virginian; *N. acuminata*, R. Grah., Latakia; *N. rustica*, Linn., a good deal of Persian tobacco; but there are many varieties of *N. Tabacum* itself. Some of these can be distinguished under the microscope.

TOLU BALSAM. *Myroxylon toluifera*, H., B. & K.

Fam. *Leguminosæ*.

Syn.—Balsam Tolu, *Toluifera Balsamum*, Baill.

Part used—Balsam. Obtained from Columbia, South America.

Action—Stimulant, tonic, expectorant. Used in chronic catarrhs, pulmonary and bronchial affections, coughs, &c.

Preparations—Liq. Tolu B.P.C. (for making Syrup). Syr. Tolu B.P.: Dose, $\frac{1}{2}$ -2 drachms. Tinct. Tolu B.P.:

Dose, $\frac{1}{2}$ –1 drachm. Tincture U.S.P. XI (double B.P. strength): Dose, 30 minims. Syrup U.S.P. XI (1 in 100): Dose, 2½ drachms.

Distinctive character—A light brown, fragrant, balsamic resin, softening in the warm hand, but on keeping becomes brittle in winter. In a thin, even layer between two warmed pieces of glass it is seen to be transparent and to contain numerous crystals of cinnamic acid. Taste, sweetly aromatic and faintly acid. Odour, recalling vanilla, but different. Obtained by tapping and collecting the balsam in gourds.

TONKA-BEANS.

Dipteryx odorata, Willd.
and *Dipteryx oppositifolia*, Willd

Fam Leguminosæ.

Syn.—*Coumarouna odorata*, Aubl, Tonquin Beans.

Part used—Seeds. Imported from Brazil.

Action—Aromatic, narcotic, cardiac tonic. Although this drug has been used in whooping cough, it seems to have fallen into disuse, probably owing to its heart-paralysing effects in large doses. It contains an odorous principle, Coumarin, which is largely used as a flavouring and perfume.

Distinctive character—The beans are about 1–2 inches long, black, wrinkled, nearly $\frac{1}{2}$ inch in diameter, flattened, with one edge sharp. They vary in size and appearance. The Surinam beans are often greyish, and the largest, Angustura beans, are more slender, long and shining; the Para shorter and smaller. Some varieties are covered with a greyish efflorescence of crystals of coumarin. These have been steeped in rum, which removes a good deal of the coumarin. The odour resembles that of new-mown hay. Largely used for perfumery.

TORMENTILLA. *Potentilla Tormentilla*, Neck.
Fam. *Rosaceæ*.

Syn.—Septfoil.

Parts used—Root, herb.

Action—Tonic, astringent. The root being the stronger is mostly used, and may be given in all cases of relaxed bowels, diarrhoea, and cholera, &c. The infusion of 1 ounce of herb to 1 pint of boiling water is taken in wineglassful doses as required. As a lotion it is applied to ulcers and old sores as a wash. The fluid extract acts as a styptic to cuts, wounds, &c. This root may be regarded as one of the safest and most powerful of astringents.

Preparation—Fluid extract, root : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—In dull, brown, hard, cylindrical, shortly tapering pieces, rough on the surface, with irregularly rounded elevations, and pits or depressed stem scars, and minute scars of filiform rootlets. Fracture short, light brownish red, showing small, distant wood bundles in one or two distant circles, and a large pith.

TRAGACANTH. *Astragalus gummifer*, Labill.
(And other species.) Fam. *Leguminosæ*.

Syn.—Gum Tragacanth, Syrian Tragacanth, Gum Dragon.

Part used—Gummy exudation. Collected in Syria and Persia.

Action—Mucilaginous, demulcent. Occasionally it is used as a remedy in cough or diarrhoea where demulcents are desirable, but mostly in the shape of a mucilage for the purpose of suspending heavy, water-insoluble

powders, such as bismutha or zinc preparations. The powder forms an ingredient in most lozenges and in many emulsions.

Preparations—Glyc. Trag. B.P.C. Lot. Trag. B.P.C. Mucil. Trag. B.P.: Dose, 1-4 drachms. Past. Trag. B.P.C. Pulv. Trag. Co. B.P.: Dose, 10-60 grains.

Distinctive character—The stem is incised, the gum exudes and dries in ribbon-shaped pieces or flakes. The first tapping is white, then lemon-coloured, and finally yellow. An inferior quality known as Hog or Caramaria Gum consists of dark tears and irregular masses mixed with fragments of bark. Indian Tragacanth or Karaya Gum, from *Sterculia urens*, occurs in pale yellow pieces, —often vermiform, with fragments of bark attached. This is often used to adulterate Tragacanth Powder. Tragacanth loses on drying about 14 per cent. of water. It swells up in water and forms a mucilage with even 50 parts of water, but only a portion of it soluble. It dissolves in alkali, but gives a yellow solution. It yields only 4 per cent. of ash.

TREE-OF-HEAVEN. *Allanthus glandulosa*, Desf.

Fam. *Rutaceæ*.

Syn.—Ailanto, Chinese Sumach.

Parts used—Bark, rootbark.

Action—Antispasmodic, cardiac depressant, astringent. The bark has been used with success in dysentery, diarrhoea, gonorrhoea, leucorrhoea, and also for tapeworm; but its nauseating effects upon human beings render it undesirable. The rootbark is employed in heart complaints, asthma, and epilepsy. The doses should not exceed 20 grains of the powder.

The leaves of this tree have been used in France for

adulterating mint and when rubbed and mixed they are only identifiable by means of a microscope.

Distinctive character—Bark brownish grey, with numerous warts, and on some pieces large, triangular scars of leaf bases; the inner surface is striated longitudinally. Fracture short, in the outer, pale buff-coloured, and fibrous in the inner part, the fibres forming a porous layer. Taste, bitter and slightly acrid. Odour, scarcely any.

TURKEY CORN. *Dicentra canadensis*, Walp.
and *Dicentra cucullaria*, Bernh.

Fam. *Papaveraceæ*.

Syn.—Turkey Pea, Squirrel Corn, Staggerweed, *Corydalis*, *Corydalis canadensis*, Gold.

Part used—Root.

Action—Tonic, diuretic, alterative, antisymphilitic. In the treatment of syphilitic disorders, it is generally combined with other remedies, and acts especially well in conjunction with Queen's Delight, Burdock, or Prickly Ash. Is also recommended in menstrual complaints. The infusion of $\frac{1}{2}$ ounce to 1 pint of boiling water is taken in wineglassful doses.

Preparations—Fluid extract: Dose, $\frac{1}{2}$ –1 drachm. Corydalin: Dose, 2 grains.

Distinctive character—Tubers tawny yellow, about $\frac{1}{4}$ inch in diameter, globose-depressed, with a scar on both the depressed sides, internally horny, or somewhat mealy as well. Taste, bitter. Inodorous.

TURMERIC. *Curcuma domestica*, Val.
Fam. *Zingiberaceæ*.

Syn.—Curcuma, *Curcuma rotunda*, Linn., *Anomum Curcuma*, Jacq.

Part used—Rhizome.

Action—Carminative, stimulating. Seldom used in medicine; in pharmacy it is employed as a colouring agent, and in cookery both as colour and seasoning. It forms a part of most curry powders, and enters into many cattle condiments.

Distinctive character—Turmeric occurs in commerce in several varieties. The Madras kind is sold in both round and long pieces. The round pieces, or bulbs, are the large central rhizome, about the size of a pigeon's egg, and are more or less pyriform, and marked with transverse ridges or leaf scars, and the long are the lateral rhizomes. Both are yellowish brown internally, with a short fracture. The Madras kind is preferred for flavouring purposes. The Bengal kind occurs in smaller, cylindrical pieces, greyish externally, and about $\frac{1}{2}$ inch in diameter, and dark brownish yellow internally, with a resinous fracture. It is preferred for dyeing purposes. Taste, aromatic. Odour, characteristic. The roots are boiled when collected, which gelatinises the starch, giving them a horny consistence and diffusing the colour throughout the drug.

TURPENTINE. Oil distilled from

Pinus Palustris, Mill.

Pinus Maritima, Lam.

(And other species) Fam. *Pinaceæ*

Action—Rubefacient, irritant, diuretic. Administered internally, it acts upon the urinary apparatus, and is valued as a remedy in chronic affections of the kidneys and bladder, gonorrhœa, gleet, and diseases of the *mucous membranes of the respiratory organs*. Externally, it is used most frequently in liniments and embrocations as an application for rheumatism and chest complaints. Terebene, which is prepared from

Turpentine, is valued as an inhalation in cases of colds and bronchitis, either by itself or mixed with other oils.

Preparations—Oil : Dose, 3-10 minims. Terebene : Dose, 5-15 minims. Lin. Alb. B.P.C. Lin. Terebinth. B.P. Lin. Terebinth. Acet. Tereb. Venet. Fact. B.P.C.

TURPETH. *Ipomœa Turpethum*, R. Br.
Fam. *Convolvulacæ*.

Syn.—Turpeth Root.

Part used—Root, containing 5-10 per cent. of a purgative resin.

Action—Cathartic, purgative. Used in India for similar purposes as Jalap, which it resembles closely in its action. Dose, 5-20 grains.

UNICORN ROOT, FALSE.

Chamaelirium luteum, A. Gray.
Fam. *Liliacæ*.

Syn.—Starwort, Helonias, *Helonias dioica*, Pursh., *Helonias lutea*, Ker-Gawl., *Chamaelirium Carolinianum*, Willd.

Part used—Root.

Action—Tonic, diuretic. Acts as a general tonic in dyspepsia and in weakness of the reproductive organs. Also given in spermatorrhœa.

Preparations—Fluid extract : Dose, $\frac{1}{2}$ -1 drachm. Helonin : Dose, 2-4 grains.

Distinctive character—Rhizome about 1 inch long and $\frac{1}{4}$ inch thick, nearly cylindrical, ringed transversely, greyish brown, with a few stem scars on the upper, and wiry rootlets on the lower side. Fracture horny, wood bundles numerous in the centre. Taste, bitter. Inodorous.



TORMENTILLA

(See page 350)



UVA-URSI

(See page 356)



VALERIAN

(See page 357)



VERNAL GRASS, SWEET

(See page 359)

UNICORN ROOT, TRUE: *Aletris farinosa*, Linn.Fam. *Liliaceæ*.

Syn.—Blazing Star, Star Grass.

Part used—Root.

Action—Tonic and stomachic. As a female tonic it has but few equals and may be given in all cases of debility. Small doses only should be given, as large ones produce nausea and giddiness.

Preparations—Elix. Aletr. B.P.C.: Dose, $\frac{1}{2}$ –1 drachm. Ext. Aletr. Liq. B.P.C.: Dose, 5–15 minims. Powdered root: Dose, 5–10 grains. Aletrin: Dose, $\frac{1}{2}$ –2 grains.

Distinctive character—Rhizome brownish grey, flattened, and tufted at the upper side with leaf bases, convex, with numerous wiry rootlets on the lower side, about $1\frac{1}{4}$ inch long and $\frac{1}{8}$ inch thick, indistinctly jointed. Fracture mealy, white, somewhat fibrous. Taste, bitter. Inodorous.

UVA-URSI. *Arctostaphylos Uva-ursi*, Spreng.Fam. *Ericaceæ*.

Syn.—Bearberry.

Part used—Leaves.

Action—Mucilaginous, astringent, diuretic. Has a specific action on the urinary organs and is especially useful in cases of gravel, ulceration of kidneys or bladder, catarrh, gleet, leucorrhœa and menorrhagia. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses three to four times a day.

Preparations—Liquid extract: Dose, $\frac{1}{2}$ –1 drachm. Inf. Uvæ Ursi Conc. B.P.C.: Dose, $\frac{1}{2}$ –1 drachm. Inf. Uvæ Ursi Rec. B.P.C.: Dose, $\frac{1}{2}$ –1 fluid ounce.

Distinctive character—Leaves leathery, obovate or oblanceolate, rounded at the apex, dark green and shining above, and tessellated by sunken veinlets, paler beneath and reticulated, with dark veinlets; margin entire and reflexed, about $\frac{3}{4}$ –1 inch long, and $\frac{1}{4}$ – $\frac{3}{8}$ inch broad. Taste, astringent. Odour, faintly tea-like.

VALERIAN.*Valeriana officinalis*, Linn.Fam. *Valerianaceæ*.**Syn.**—Great Wild Valerian.**Part used**—Root.

Action—Anodyne, antispasmodic, nervine. May be given in all cases of nervous debility and irritation, also in hysterical affections. It allays pain and promotes sleep. Is strongly nervine without any narcotic effects, and enters into various herbal nervine and antispasmodic compounds. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses.

Indian Valerian, *denudata*
 D.C. *officinalis* :
 in
 tinct. same doses as the
 B.P.

Preparations—Elix. Valerian B.P.C. : Dose, $\frac{1}{2}$ –2 drachms. Elix. Valerian Co. B.P.C. : Dose, $\frac{1}{2}$ –1 fluid ounce. Ext. Valerian B.P.C. : Dose, 1–5 grains. Ext. Valerian Liq. B.P.C. : Dose, 5–15 minims. Inf. Valerian Conc. : Dose, $\frac{1}{2}$ –1 drachm. Mist. Valerian Co. B.P.C. : Dose, $\frac{1}{2}$ –1 fluid ounce. Tinct. Valerian Ammon. B.P. : Dose, $\frac{1}{2}$ –1 drachm. Tinct. Valerian Simp. B.P.C. : Dose, 1–2 drachms.

Distinctive character—The root is at once distinguished by its strong and disagreeable odour. It

consists of a short rootstock, about $\frac{3}{4}$ inch long and $\frac{1}{2}$ inch in diameter, with numerous short lateral branches, and rootlets 3 or 4 inches long, the crown often showing the leaf scales of the stem base. The transverse section is horny with a very narrow woody ring, and is of a pale grey-brown colour. Old roots are often hollow. Taste, sweetish, bitter. Odour, characteristic.

VERNAL GRASS, SWEET.

Anthoxanthum odoratum, Linn.

Fam. *Graminaceæ*.

Part used—Flowers.

Action—It has been used in hay fever, internally in the form of a tincture and externally as a snuff.

Preparation—Tincture of fresh plant 1 in 10 of 40 O.P. Spirit : Dose, 2-6 minims internally for hay fever. The Tincture may be diluted and used as a nasal lotion.

Distinctive character—Flowers in dense spikes, tapering at both ends, about $1\frac{1}{2}$ inch long and $\frac{1}{2}$ inch wide. It is distinguished from the allied genera by having only two stamens in the flowers, and by its aromatic hay-like taste.

VERVAIN.

Verbena officinalis, Linn.

Fam. *Verbenaceæ*.

Syn.—*Verbena hastata*, Linn.

Part used—Herb.

Action—Nervine, tonic, emetic, sudorific. May be employed with advantage in the early stages of fevers, colds, &c., and in the treatment of fits, convulsions, and nervous disorders. The sweetened infusion of 1 ounce

to 1 pint of boiling water is a good remedy for coughs, colds, &c., when taken frequently in wineglassful doses.

Preparation—Fluid extract: Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stem 1–2 feet high, quadrangular. Leaves distant and opposite, pinnately-lobed serrate, rough. Flowers small, pinkish blue, two-lipped, with didynamous stamens and an entire four-seeded ovary. Taste, very bitter. Odour, when rubbed, slightly aromatic.

VIOLET.

Viola odorata, Linn.

Fam. *Violaceæ*.

Syn.—Blue Violet, Sweet Violet.

Parts used—Leaves, flowers.

Action—Antiseptic, expectorant. Violet leaves contain certain glucosidal principles, not yet fully investigated, but of distinct antiseptic properties. It has lately been recommended and used with benefit to allay pain in cancerous growths—some even say to cure cancer. In 1902 Lady Margaret Marsham, of Maidstone, cured from cancer of the throat by infusion of Violet Leaves, published the recipe. The relief was almost immediate. In a week the external hard swelling had gone, and in a fortnight the cancer on the tonsil had disappeared. Pour a pint of boiling water on to a handful of fresh Violet Leaves and stand for twelve hours. Strain and warm a sufficient quantity to soak a piece of lint when required. Apply to the affected part and cover with a piece of oilskin. Change the lint when dry or cold. Another report states that a gentleman age 45 was cured of cancer by drinking 1 pint of infusion of Violet Leaves prepared from the dry leaves, and also by fomentation with the hot liquor. Or a poultice may be made and used in similar manner. The flowers possess expectorant properties, and have long been used in syrup form for coughs, colds, &c.

Distinctive character—The leaves are cordate-ovate, obtuse, with long stalks bearing deflexed hairs. Flowers blue, with a hooked stigma, and a short spur inflated at the end and channelled above. In a blue variety of *V.* purposes, flowers of spur twice name.

WAFER ASH.

Ptelea trifoliata, Linn.Fam. *Rutaceæ*.

Syn.—Wingseed, Hop Tree, Shrubby Trefoil, *Ptelea*, Swamp Dogwood.

Part used—Rootbark.

Action—Tonic, antiperiodic, stomachic. In all cases of debility, and during intermittent and remittent febrile diseases, where a tonic is indicated, this drug can be employed with benefit. It has a soothing influence upon the mucous membrane and promotes appetite, being tolerated when other tonics cannot be retained. The powdered bark is given in doses of 10–30 grains. The infusion is taken in tablespoonful doses three to four times a day.

Distinctive character—The rootbark occurs in quilled or curved pieces, about $1\frac{1}{2}$ –3 inches long and $\frac{1}{2}$ – $\frac{3}{4}$ inch in diameter and $\frac{1}{8}$ – $\frac{3}{4}$ inch thick, transversely wrinkled, with a whitish brown or pale buff exfoliating surface of thin, papery layers, the inner surface nearly smooth, with faintly projecting medullary rays. Transverse fracture short, yellowish white, the papery layer pale buff. Taste, bitter. Odour, none.



VERVAIN

(See page 358)



VIOLET

(See page 359)



WATER BETONY

(See page 356)



WATER DOCK

(See page 354)

WAHOO. *Euonymus atropurpureus*, Jacq.
Fam. *Celastraceæ*.

Syn.—Indian Arrowroot, Burning Bush, Spindle Tree.

Parts used—Rootbark, bark.

Action—Tonic, alterative, cholagogue, laxative. Valuable in liver disorders, especially those following or accompanied with fever. For constipation due to inactivity of liver it may be given with every confidence, especially as its action is mild and non-irritant. The concentration "Euonymin" is generally given in pill form and in combination with other tonics, laxatives, &c.

Preparations—Elix. Euonym. et Pulsat. B.P.C.: Dose, 1-4 drachms. Ext. Euonym. B.P.C. (Syn., Euonymin): Dose, 1-2 grains. Liq. Euonym. et Iridin B.P.C.: Dose, $\frac{1}{2}$ -1 drachm. Liq. Euonym. et Pepsin B.P.C.: Dose, $\frac{1}{2}$ -1 drachm. Tinct. Euonym. B.P.C.: Dose, 10-40 minims.

Distinctive character—The rootbark occurs in quilled or curved pieces about $\frac{1}{2}$ inch thick, ash grey, with blackish ridges or patches, outer surface whitish or slightly tawny. Fracture friable, smooth, whitish, the inner layer appearing tangentially striated. Taste, sweetish, bitter, and acrid. Nearly inodorous. The stembark is in longer quills, with a smooth outer surface with lichens usually present on it, and a greenish layer under the epidermis.

WAKE ROBIN, AMERICAN.

Arum triphyllum, Linn.

Fam. *Araceæ*.

Syn.—Wild Turnip, Indian Turnip, Dragon Root, Jack-in-the-pulpit, *Arisaema triphyllum*, Schott.

Part used—Root.

Action—Expectorant, diaphoretic. Recommended in croup, whooping cough, cough, bronchitis, laryngitis, pains in chest, &c. Also useful in flatulence, asthma, and colic.

Preparation—Powdered root : Dose, 10-30 grains.

Distinctive character—About 1-2 inches broad, depressed globular, with a ring of simple rootlets above, the surface wrinkled below, brown-grey, internally white and mealy, with scattered wood bundles. In slices 1-2 inches in diameter and $\frac{1}{2}$ inch thick, brownish white at the margins, the transverse surfaces white, starchy, with numerous pale brown dots indicating the scattered wood-bundles. Taste, burning and acrid. Odour none.

WALNUT.

Juglans nigra, Linn.

Fam. *Juglandaceæ*

Parts used—Bark, leaves.

Action—Alterative, laxative, detergent. Used in herpes, eczema, scrofula, and syphilis. The infusion of 1 ounce of bark or leaves in 1 pint of boiling water is taken in wineglassful doses. Externally this is also used as an application to skin eruptions, ulcers, &c.

Preparation—Fluid extract, leaves. Dose, 1-2 drachms.

Distinctive character—The leaflets vary in size on the same leaf, which is composed of seven to nine leaflets. They average 2 $\frac{1}{2}$ -4 inches in length and 1-1 $\frac{1}{2}$ inch wide, rather paler below, parchment-like when dry, leafstalks brown. Taste, bitter and astringent. Odour, aromatic and characteristic. By long keeping the leaves become brown and lose their aroma.

The bark occurs in quilled or curved pieces 3-6 inches long or more, and $\frac{3}{4}$ -1 $\frac{1}{2}$ inch broad, dull blackish brown, with traces of a thin whitish epidermal layer, tough and fibrous, and somewhat mealy; the inner fibres tough and flattened, those in the outer mealy portion white and silky. Taste, bitter and astringent. Odour, none.

WATER BETONY. *Scrophularia aquatica*, Linn.

Fam. *Scrophulariaceæ*.

Syn.—Brownwort, Bishop's Leaves, *Betonica aquatica*.
Part used—Leaves.

Action—Vulnerary, detergent. Used externally as poultice for ulcers, sores, and wounds, or boiled in lard as an ointment.

Distinctive character—Stem and leafstalks winged, leaves cordate-oblong, obtuse, crenate-serrate, bracts linear, blunt. Flowers greenish purple, small, with two long and two short stamens, and a roundish, kidney-shaped staminode; ovary two-celled, with numerous seeds. Taste, bitterish. Odour, none.

WATER DOCK.

Rumex aquaticus, Linn.

Fam. *Polygonaceæ*.

Syn.—Red Dock, Bloodwort.

Part used—Root.

Action—Alterative, deobstruent, detergent. Used for cleansing ulcers in affections of the mouth, &c. As a powder it has cleansing and detergent effects upon the teeth. Internally the dose of the infusion is a wine-glassful.

Preparation—Fluid extract: Dose, $\frac{1}{2}$ -1 drachm.

Distinctive character—In vertical slices, taken through the top-shaped rootstock, the outer surface blackish or dark brown, with the remains of a few branches, and *transverse rings of scars of rootlets*. The transverse section shows a porous bark, and a large pith, with honeycomb-like cells, and a short zone of woody bundles, with porous medullary rays between them. Taste, astringent and somewhat sweet. Odour, none.

WATER DROPWORT. *Oenanthe crocata*, Linn.

Fam. *Umbelliferae*.

Syn.—Hemlock Water Dropwort, Water Lovage, Hemlock Dropwort, Dead Tongue

Part used—Root.

Action—Narcotic, poisonous. This is an exceedingly poisonous plant, producing severe gastro-intestinal disturbances and convulsions. A tincture made with 2 ounces in 1 pint of diluted alcohol has been used with benefit in epilepsy resulting from injury, the dose being 1-5 drops, administered with great caution.

Distinctive character—The root is white, or yellowish when dried, spindle-shaped, containing a milky juice which, in the fresh root, exudes in scattered drops that quickly turn orange when the root is broken. Exceedingly poisonous, and should not be used except under a doctor's order.

WATER FENNEL.

Oenanthe Phellandrium, Lamk

Fam. *Umbelliferae*

Syn.—*Phellandrium aquaticum*, Linn.

Part used—Fruit.

Action—Expectorant, alterative, diuretic. In chronic affections of the air passages, such as asthma, laryngitis,

catarrh, &c., this is considered to have a beneficial effect. The powder may be given in doses of 4-5 grains, cautiously administered, as large doses produce dizziness, pains in head, and other undesirable symptoms, Dr. Turnbull, of Liverpool, recommends it highly in bronchitis to relieve cough, ease expectoration, and produce sleep.

Distinctive character—The fruit is oblong, about $\frac{1}{2}$ inch long and $\frac{1}{4}$ inch in diameter, tapering a little towards the apex, and crowned with four minute, subulate teeth. There are four vittæ (oil cells) on the convex surface, and two on the flat surface of each half fruit. Taste, acrid. Odour, strong, aromatic, and characteristic.

WATER GERMANDER.

Teucrium Scordium, Linn.

Fam. *Labiatae*.

Part used—Herb.

Action—Antiseptic, diaphoretic, stimulant. Will be found an excellent remedy in all inflammatory diseases. The infusion of 1 ounce of herb in 1 pint of boiling water is taken in wineglassful doses.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stem velvety. Leaves opposite, sessile, oval-oblong, $\frac{3}{4}$ inch long and $\frac{1}{2}$ inch broad, narrowed at the base, coarsely serrate at the margin, and softly hairy on both sides. Taste, bitter. The fresh leaves, when rubbed, have a penetrating alliaceous odour.

WATER PLANTAIN.

Allisma Plantago, Linn.

Fam. *Alismaceæ*.

Syn.—Mad-Dog Weed.

Part used—Leaves.

Action—Diuretic, diaphoretic. An excellent remedy



WATER DROPWORT

(See page 365)



WATER FENNEL

(See page 365)



WATER GERMANDER

(See page 366)



WATER PLANTAIN

(See page 366)

in gravel and other urinary and kidney diseases, where there is irritation and uneasiness in passing water, pains in the loins, &c. The powdered leaves are given in doses of 1-2 drachms, or taken in an infusion of 1 ounce to 1 pint of boiling water in teacupful doses three or four times a day.

Distinctive character—The leaves are greyish green, on long stalks, cordate-ovate, or lanceolate, with prominent veins. Taste, acrid. Odour, none.

WHITE POND LILY, AMERICAN.

Nymphaea odorata, Soland.

Fam. *Nymphaeaceæ*.

Syn.—Water Nymph, Water Cabbage.

Part used—Root.

Action—Antiseptic, astringent, demulcent. Will be found of service in bowel complaints, where an astringent is needed. A decoction of 1 ounce of root boiled in 1 pint of water for twenty minutes is taken internally in wineglassful doses. For external application the decoction can be used as an excellent lotion for bad legs and sores generally. As an injection in leucorrhœa, fluor albus, and gleet it is very useful. In putrid sore throat it may be used as a gargle, and it is a good wash for sore eyes, ophthalmia, &c. The powder is often used as a poultice, when it should be combined with equal parts of crushed Linseed or powdered Slippery Elm.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ -1 drachm.

Distinctive character—The root in pieces about 2 inches in diameter, with circular leaf scars on the upper, and remains of rootlets on the lower side ; externally brown, internally greyish white, spongy, with scattered wood bundles. Taste, mucilaginous, astringent. Inodorous. The English White Water Lily is *N. alba*, Linn.

WILD CARROT.

Daucus Carota, LinnFam. *Umbelliferae*.

Syn.—Bird's Nest.

Part used—Herb.

Action—Diuretic, deobstruent, stimulant. An active and valuable remedy in the treatment of dropsy, retention of urine, gravel, and affections of the bladder. The infusion of 1 ounce in 1 pint of boiling water is taken in wineglassful doses.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Leaves oblong, or obovate-oblong, bipinnate, with acute segments, the whole plant hairy. In taste and odour it resembles the garden carrot, but the root is small and white, not large. The umbel of white flowers has generally one central crimson flower, and the fruit is margined with prickles, which are tipped with one to three minute recurved bristles.

WILD CHERRY.

Prunus serotina, Ehrh.Fam. *Rosaceæ*.Syn.—Virginian Prune, *Cerasus serotina*, Lois.

Part used—Bark.

Action—Astringent, tonic, pectoral, sedative. Used as a tonic in convalescence from fevers, &c. Also as a valuable remedy in catarrhal affections; given in consumption, nervous cough, whooping cough, and dyspepsia.

Preparations—Syr *Prun. Serot.* B.P. · Dose, $\frac{1}{2}$ –2 drachms. Tinct. *Prun. Serot.* B.P.C. · Dose, $\frac{1}{2}$ –1 drachm. Liquid extract : Dose, $\frac{1}{2}$ –1 drachm. Solid extract : Dose, 1–3 grains Powdered bark Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—The bark occurs in curved or flat pieces $\frac{1}{2}$ inch or more thick, externally smooth, greenish brown or yellowish brown and glossy; or if from older trees, rust-brown, uneven, and deprived of most of the corky layer. Fracture short, granular, radiately striate, under surface often porous, with a network of fibres. When soaked in water it gives off a bitter almond odour. Taste, bitter, astringent, and aromatic.

WILD INDIGO.

Baptisia tinctoria, R. Br.

Fam. *Leguminosæ*.

Syn.—*Baptisia*, Indigoweed, *Sophora tinctoria*, Linn., *Podalyria tinctoria*, Michx.

Parts used—Root, leaves.

Action—Antiseptic, stimulant, purgative, emmenagogue. In small doses it is a mild laxative; in large, a powerful cathartic. Used in rheumatism, scarlatina, &c., and as an antiseptic injection in foul discharges. A decoction of 1 ounce in 1 quart of water boiled down to 1 pint is taken in tablespoonful doses. An ointment made from 1 part of fluid extract to 8 parts of simple ointment is applied to inflamed tumours and ulcers.

Preparations—Fluid extract: Dose, $\frac{1}{4}$ – $\frac{1}{2}$ drachm
Baptisin: Dose, 1–3 grains. Tinct. Baptis. B.P.C.

Distinctive character—Crown of the root with knotty branches and few little-branched roots about 20 inches long and $\frac{1}{2}$ inch thick, furrowed longitudinally, becoming warty and scaly externally. Fracture tough and fibrous. Bark brown, rather thick, with tough bast fibres in radial lines. Wood whitish, with concentric lines, finely porous, medullary rays indistinct. Taste, bitterish, acrid, and disagreeable; the wood, tasteless.



WOOD H TONY

1 8 1 8 8





WILD CARROT

(See page 369)



WILD MINT

(See page 371)



WILLOW, BLACK

(See page 373)



WILLOW, WHITE

(See page 373)

WILD MINT.

Mentha sativa, Linn.Fam. *Labiatae*.

Syn.—Marsh Mint, *Mentha aquatica*, Linn., Hairy Mint.

Part used—Herb.

Action—Emetic, stimulant, astringent. Used in diarrhoea and in difficult menstruation. The infusion of 1 ounce to 1 pint of boiling water is taken in wine-glassful doses.

Distinctive character — Leaves opposite, shortly stalked or nearly sessile, ovate, acute, serrate, hairy, the upper ones smaller. Flowers forming axillary clusters. Taste, aromatic. Odour, characteristic.

WILD YAM.

Dioscorea villosa, Linn.Fam. *Dioscoraceae*.

Syn.—Dioscorea, Colic Root, Rheumatism Root.

Part used—Root.

Action—Antibilious, antispasmodic, diaphoretic. Is valuable in all forms of colic, abdominal and intestinal irritation, &c., in spasms, spasmodic asthma, vomiting, and hepatic congestion. A decoction of 1 ounce of root in 1 pint of water may be taken in tablespoonful doses until relieved. Large doses may produce emesis.

Preparations—Fluid extract: Dose, $\frac{1}{2}$ –1 drachm.
Dioscorein: Dose, $\frac{1}{2}$ –4 grains.

Distinctive character — Tuber cylindrical compressed, branched at intervals of about 2 inches, and curved, about 4–6 inches long, and $\frac{1}{2}$ – $\frac{3}{4}$ inch thick, pale brown externally, with sunk stem scars on the upper and remains of rootlets below. Fracture short, internally hard, white, with yellowish wood bundles. Taste, insipid, afterwards acrid. Inodorous.

WILLOW, BLACK, AMERICAN.

Salix discolor, Muehl.

Fam. *Salicaceæ*.

Syn.—Pussy Willow, *Salix nigra*, Marsh.

Parts used—Bark, berries.

Action—Anaphrodisiac, sexual sedative, tonic. Is highly recommended and largely used in the treatment of spermatorrhœa, nocturnal emissions, &c. Also relieves ovarian pain. The infusion of 1 ounce of bark to 1 pint of boiling water is used in wineglassful doses. A poultice made by simmering the powdered bark in cream is unrivalled in gangrene and indolent ulcers, &c.

Preparation—Ext. Salic. Nig. Liq. B.P.C. : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—In quilled pieces, 2–6 or more inches long and about $\frac{3}{4}$ inch broad, blackish grey externally, with numerous dark brown, round lenticels, inner surface pale buff. Transverse section pale buff, rough, with flat, pointed fibres. Taste, bitter, astringent. Odour, none.

There are many varieties of the English Willow, and probably the one nearest approaching the American Black Willow is the *Salix nigricans*, which we illustrate.

WILLOW WHITE.

Salix alba, Linn.

(And other species) Fam. *Salicaceæ*.

Syn.—European Willow.

Part used—Bark.

Action—Tonic, antiperiodic, astringent. Has been used with benefit in febrile diseases of rheumatic or gouty origin, also in diarrhœa and dysentery. The usual form of administration is the decoction, given in wineglassful doses four to five times a day.

Distinctive character—In quills or fragments of varying length, $\frac{1}{4}$ — $\frac{1}{2}$ inch thick, somewhat glossy, brownish, striated longitudinally, with ellipsoid leaf scars. Inner surface cinnamon brown, finely striated. Fracture short, slightly laminated. Taste, bitter. Inodorous.

Salicin, which is official in the B.P., is prepared from various species of *Salix*, but more particularly from *S. fraxilis*, Linn., grown in Belgium.

WINTER'S BARK.

Drimys Winteri, Forst.

Fam. *Magnoliaceæ*.

Syn.—*Wintera*, Winter's Cinnamon, True Winter's Bark, *Wintera aromatica*, Murr.

Part used—Bark. From South America.

Action—Stimulant, aromatic, stomachic. This bark has been highly recommended in indigestion, flatulence, colic, &c., and also as an antiscorbutic. The powdered bark is given in doses of 30 grains. An infusion made from 1 ounce of bark in 1 pint of boiling water is given in wineglassful doses.

Distinctive character—Now very rare in commerce, but sometimes imported under the name of pepper bark. In short pieces $\frac{1}{4}$ — $\frac{1}{2}$ inch in thickness, and 2–3 inches long, dark brown throughout. Fracture short and granular, showing pale medullary rays in the bark, which project on the inner surface, giving it a striated appearance. Taste, very pungent. Odour, feeble.

False Winter's Bark, *Cinnamodendron corticosum*, grown in the West Indies, has similar properties. As the true Winter's Bark is now unobtainable, this has taken its place and is invariably supplied. The bark closely resembles Canella, but is more astringent, owing to the presence of tannin.

WINTER CHERRY. *Physalis Alkekengi*, Linn.
Fam. *Solanaceæ*.

Syn.—Alkekengi, Strawberry Tomato.

Part used—Berries.

Action—Diuretic, febrifuge. Has been employed with success in intermittent fevers, also in urinary disorders caused by rheumatism and gout.

Distinctive character—The dried berries are dull red, about $\frac{1}{4}$ – $\frac{1}{2}$ inch in diameter, globular, two-celled, containing numerous whitish, ovoid, flattened seeds. The red inflated calyx, about 1 inch in diameter, is sometimes left attached to the berries. Taste, sweet and bitterish. Odour, none. The plant sold in pots as Winter Cherry is *Solanum pseudo-capsicum*.

WINTERGREEN. *Gaultheria procumbens*, Linn.
Fam. *Ericaceæ*.

Syn.—Teaberry.

Part used—Leaves.

Action—Aromatic, astringent, stimulant. A very valuable remedy in the treatment of rheumatism, for which it is often used, especially in combination with other herbal agents. May be employed in diarrhoea, and as an infants' carminative. The infusion of 1 ounce in 1 pint of boiling water is taken in wineglassful doses.

Preparations—Fluid extract. Dose, $\frac{1}{4}$ –1 drachm. Oil: Dose, 5–15 minims. The oil is not now produced from *G. procumbens*, but from the bark of *Betula lenta*, Linn.

Distinctive character—The leaves are obovate or broadly elliptical, short-stalked, faintly serrate at the margin, leathery, glossy green above, paler beneath. Taste, astringent, and aromatic. Odour, that of methyl-salicylate.

WITCH HAZEL. *Hamamelis virginiana*, Linn.

Fam. *Hamamelidaceæ*.

Syn.—Spotted Alder.

Parts used—Bark, leaves.

Action—Astringent, tonic, sedative. Most valuable in checking internal and external hæmorrhages, also in the treatment of piles. A decoction made from the bark or leaves makes an excellent injection for bleeding piles. An ointment made by adding 1 part fluid extract bark to 9 parts simple ointment is also used as a local application. The distilled extract from the fresh leaves and young twigs forms an excellent household remedy for internal or external use. For varicose veins it should be applied on a lint bandage, kept constantly moist. The concentration "Hamamelin" is used for piles mostly in form of suppositories.

Preparations—From bark : Tinct. Hamam. B.P.C. : Dose, $\frac{1}{2}$ –1 drachm. From leaves : Ext. Hamam. B.P.C. (Hamamelin) : Dose, 1–5 grains. Ext. Hamam. Liq. B.P. : Dose, $\frac{1}{2}$ –1 drachm. Past. Hamam. B.P.C. Liq. Hamam. B.P.C. (Distilled Witch Hazel). Supp. Hamam. B.P.C. Supp. Hamam. et Zinc. Oxid. B.P.C. Ung. Hamam. B.P.C.

Distinctive character—Bark in quilled pieces about $\frac{1}{16}$ inch thick, from 2–4 or more inches long, the outer surface greyish, scaly, with transverse lenticels, pinkish brown, the inner surface striated longitudinally. Fracture fibrous and laminated. Taste, astringent. Odour, feeble. The leaves are broadly obovate, usually 3 or 5 inches long, and about 2–2 $\frac{1}{2}$ inches broad, the margins serrate-dentate, feather-veined, the erect veins prominent below, each ending in a tooth. The hairs, when remaining on the dried, rather brittle, leaves, are stellate.



WOOD BETONY
(See page 375)



WOODRUFF
(See page 374)



WOOD SAGE
(See page 373)



WOOD-SORREL
(See page 372)

WOOD BETONY.*Stachys Betonica*, Benth.Fam. *Labiata*.Syn.—Bishopswort, *Betonica officinalis*, Linn.

Part used—Herb.

Action—Aromatic, astringent, alterative. Used as a tonic in dyspepsia and as an alterative in rheumatism, scrofula, and impurities of the blood. Is generally combined with other remedies. The dose of the infusion of 1 ounce to 1 pint of boiling water is a wineglassful taken frequently.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stem furnished with few distant pairs of rough, hairy, oblong leaves, 2–3 inches long and about $\frac{3}{4}$ –1 inch broad, crenate at the margins, the leaves mostly radical. Flowers purplish, labiate, arranged in a terminal oval spike interrupted below, the calyx smooth.

WOODRUFF.*Asperula odorata*, Linn.Fam. *Rubiaceæ*.

Syn.—Woodroof, Waldmeister Tea.

Part used—Herb.

Action—Diuretic, tonic. Useful for removing biliary obstructions of liver, &c., and is strengthening to the stomach.

Distinctive character—Herb about 6–8 inches high, with a slender, quadrangular, brittle stem, and whorls of usually eight narrowly elliptic, rather rigid leaves about 1 inch long and $1\frac{1}{4}$ inch broad, entire at the margins, and tipped with a sharp point. Taste, like coumarine. Odour, when dried, like new-mown hay.



WOODRUFF
Asperula Odorata



WOOD SAGE. *Teucrium Scorodonia*, Linn.
Fam. *Labiatae*.

Syn.—Garlic Sage.

Part used—Herb.

Action—Diaphoretic, astringent, emmenagogue, tonic. Used in fevers, colds, inflammations, and in obstructed menstruation. The infusion of 1 ounce in 1 pint of boiling water is taken warm in wineglassful doses.

Preparation—Fluid extract: Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stems obtusely quadrangular. Leaves opposite, stalked, ovate, with a cordate base, obtuse, crenate-serrate, the upper surface reticulated with prominent veinlets beneath; about $1\frac{1}{2}$ inch long and $\frac{3}{8}$ inch broad. Taste, bitter, resembling that of hops. Odour, slightly aromatic.

WOOD-SORREL. *Oxalis Acetosella*.
Fam. *Geraniaceae*.

Syn.—Common Wood-Sorrel.

Part used—Herb.

Action—Diuretic, refrigerant. Reputed of value in febrile diseases, urinary affections, catarrh, gonorrhoea, and hæmorrhages. The herb may be infused with water or boiled in milk and administered freely, although excess should be guarded against.

Distinctive character—Leaves trifoliate, stalked,
veins. Taste, pleasantly acid. Odour, none.

WORMSEED. *Chenopodium ambrosioides*,
var *anthelminticum*, A. Gray
Fam. *Chenopodiaceae*.

Syn.—American Wormseed

Part used—Seed.

Action—Anthelmintic, antispasmodic. Chiefly used to expel intestinal worms. It should be given at bedtime and in the morning before food, for two or three days, followed by some cathartic.

Preparations—Powdered seeds : Dose, $\frac{1}{4}$ –1 drachm. Liquid extract : Dose, $\frac{1}{2}$ –1 drachm. Ol. Chenopod. B.P. : Dose, 3–15 minims.

Distinctive character—Fruit depressed globular, about $\frac{1}{16}$ inch in diameter, greenish or brown, glandular. The single seed is glossy, black, lenticular, with an obtuse edge, the albumen containing a curved embryo. Taste, acrid, astringent, and turpentiney. Odour, camphoraceous and turpentiney. It is known in New Zealand as Californian Spearmint. Contains about 3 per cent. volatile oil, to which the anthelmintic properties are due.

WORMSEED, LEVANT. *Artemisia cina*, Berg.

Fam. *Compositæ*.

Syn.—Santonica, Semen Cinae, Semen sanctum, Semen contra, Vermes, Semen Santonici, *Artemisia Lercheana*, Kar. and Kir., *Artemisia maritima*, var. *pauciflora*, Web., *Artemisia maritima*, var. *Stechmanniana*, Bess., *A. chamaemelifolia*, Vill.

Part used—Unexpanded flower buds.

Action—Vermifuge. The seeds are used in domestic practice combined with honey or treacle. Their vermifuge action is due to the presence of Santonin, the flowerheads containing from 2 to 3.5 per cent. The chief use of Levant Wormseed is for the extraction of Santonin, which is official in the B.P. The flowerheads (commonly called seeds) may be administered in doses of from 10 to 30 grains night and morning to expel round worms. It has less effect upon thread worms and little action on tape worms. When the flowerheads expand, the Santonin content rapidly decreases.

Preparations—Santonin B.P.: Dose, 1-3 grains. Tab. Santonin et Hydrarg. Subchlor. B.P.C.: Dose, 1-2 tablets. Tab. Santonin et Scammon Co. B.P.C.: Dose, 1 tablet. Troch. Santonin B.P.C. (each lozenge contains 1 grain Santonin).

Distinctive character—This drug consists of minute flowerheads containing three to five minute tubular flowers without pappus. The flowerheads are about $\frac{1}{8}$ inch long and $\frac{1}{16}$ inch in diameter, greenish yellow when fresh, brown when kept for some time, each has 18 oblong-obtuse scales closely overlapping each other and bearing minute yellow glands on their surface. Taste, bitter and aromatic. Odour, when rubbed, that of cineol.

WORMWOOD.

Artemisia Absinthian, Linn.Fam. *Compositae*.

Syn.—Old Woman, Ajenjo.

Part used—Herb.

Action—Tonic, stomachic, febrifuge, anthelmintic. A good remedy for enfeebled digestion and debility. It may also be used to expel worms. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses.

Preparations—Fluid extract Dose, $\frac{1}{2}$ -1 drachm. Tinct. Absinth. B.P.C.: Dose, 1-4 drachms

Distinctive character—Stem 2 $\frac{1}{2}$ feet high, whitish like the leaves, with fine silky, appressed hairs. Leaves about 3 inches long by $1\frac{1}{2}$ inch broad, about three times pinnatifid, the leafstalks slightly winged at the margin, and the lobes linear and obtuse. The small nearly globular flowerheads are arranged in an erect leafy panicle, the leaves being reduced to three or even one linear segment. The flowers have a greenish yellow tint and have no pappus. Taste, very bitter. Odour characteristic, resembling that of thuyone.

WOUNDWORT, MARSH. *Stachys palustris*, Linn.Fam. *Labiatae*.

Syn.—Allheal, Panay, Opopanewort, Clownswort, Downy Woundwort, Clown's Woundwort, *Rusticum Vulna Herba*.

Part used—Herb.

Action—Antiseptic, antispasmodic. It relieves gout, cramp, and pains in the joints, falling sickness and vertigo. The bruised leaves, applied to a wound, will stop bleeding and heal the wound. The fresh juice is made into a syrup and taken internally to stop hæmorrhages, dysentery, &c. Gerarde praises its virtues in healing grievous and mortal wounds.

Distinctive character—Leaves narrowly lanceolate, nearly sessile, hairy. Flowers, dull purple. Taste, astringent. Odour, unpleasant.

WOUNDWORT, HEDGE. *Stachys sylvatica*, Linn.Fam. *Labiatae*.

Distinctive character—Leaves cordate-ovate, serrate, long-stalked, hairy. Flowers reddish purple. Stems square. Taste, astringent. Odour, unpleasant.

YARROW.

Achillea millefolium, Linn.Fam. *Compositae*.

Syn.—Milfoil, Thousand-leaf, Nosebleed.

Part used—Herb.

Action—Diaphoretic, stimulant, tonic. Most useful in colds, obstructed perspiration, and the commencement of fevers. It opens the pores freely and purifies the blood. The infusion of 1 ounce to 1 pint of boiling water is taken in wineglassful doses, drunk warm, with



WORMWOOD

(See page 381)



WOUNDWORT

(See page 381)



YARROW

(See page 381)



YELLOW DOCK

(See page 381)

a teaspoonful of Composition Essence added to each dose. Combined with Elder Flowers and Peppermint it forms a speedy cure for influenza colds, &c.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stem angular, rough. Leaves alternate, about 3–4 inches long and 1 inch broad, bipinnatifid, clasping the stem at the base ; the segments very narrow, short, and linear acute. The whole plant more or less hairy with white, silky, appressed hairs. The flowerheads small, white, minutely daisy-like, in flattened-terminal corymbose cymes. Taste, insipid. Odour, feeble.

YELLOW DOCK.

Rumex crispus, Linn.

Fam. *Polygonaceæ*.

Syn.—Curled Dock.

Part used—Root.

Action—Laxative, alterative, tonic. Can be freely used in rheumatism, skin diseases, bilious complaints, piles, bleeding of the lungs, &c. A syrup may be made by boiling $\frac{1}{2}$ pound of crushed root in 1 pint of syrup, and taken in teaspoonful doses. The dose of the infusion of 1 ounce of powdered root in 1 pint of boiling water is a wineglassful.

Preparations—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm. Solid extract : Dose, 5–15 grains. Rumin : Dose, 3 grains.

Distinctive character—The root occurs in short shrivelled pieces, about $\frac{3}{4}$ –1 inch long or more, brown, and more or less rough and wrinkled externally, showing on transverse section a yellowish brown, rather thick bark, surrounding a woody centre with concentric rings and a radiate structure. Leaves narrow, oblong, lanceolate, crisped at the margins. Taste, mucilaginous, bitterish. Odour, none.

YELLOW FLAG.*Iris Pseudacorus*, Linn.Fam. *Iridaceæ*.

Syn.—Yellow Iris, Flower-de-luce, *Iris lutea*, *Iris aquatica*, Fleur-de-Lye.

Part used—Root.

Action—Astringent, cooling. It is reputed of value in dysmenorrhœa and leucorrhœa as an astringent lotion.

Distinctive character—Rhizome brownish externally, cylindrical, compressed, with transverse scars of fallen leaves, and scars of roots beneath, dark red internally. Flowers yellow. Taste, very acrid. Odour, none.

YELLOW PARILLA.*Menispermum Canadense*, Linn.Fam. *Menispermaceæ*.

Syn.—Moonseed, Canadian Moonseed, Moonseed Sarsaparilla

Part used—Root.

Action—Alterative, laxative, diaphoretic, tonic. A valuable alterative, considered to excel Sarsaparilla in treatment of scrofula, syphilis, blood disorders and cutaneous diseases generally. It also acts as a tonic and nervine, and may be given in all cases of debility and dyspepsia.

Preparations—Powdered root Dose, $\frac{1}{2}$ –1 drachm. Fluid extract Dose, $\frac{1}{2}$ –1 drachm. Menispermum Dose, 1–4 grains.

Distinctive character—Root cylindrical, about $\frac{1}{2}$ inch thick, varying in length, finely wrinkled longitudinally, yellowish brown, with slender, branching, brittle rootlets, internally yellowish. Fracture, tough, woody. Taste, bitter. Nearly inodorous.

YERBA REUMA.*Frankenia grandifolia*, Cham. and Schlecht.Fam. *Frankeniaceæ*.

Syn.—Flux Herb.

Part used—Herb.

Action—Mild astringent. Is of service in diarrhœa, dysentery, leucorrhœa, gonorrhœa, gleet, and catarrh. It may be applied locally as an injection.

Preparation—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm.

Distinctive character—Stem slender, about $\frac{1}{8}$ inch in diameter, forked. Leaves opposite, about $\frac{1}{2}$ inch long and $\frac{1}{8}$ inch in diameter, linear, with strongly-revolute margins, short hairy, as is also the stem. Taste, saline. Odour, none.

YERBA SANTA. *Eriodictyon glutinosum*, Benth.Fam. *Hydrophyllaceæ*.

Syn.—Eriodictyon, Mountain Balm, Bearsweed.

Part used—Leaves. Grown in California.

Action—Aromatic, tonic, expectorant. Is highly recommended for bronchitis, asthma, consumption, and all similar catarrhal affections. To increase its effects in asthmatic complaints it is generally combined with Grindelia. An aromatic syrup of Yerba Santa is used to mask the taste of quinine.

Preparations—Fluid extract : Dose, $\frac{1}{2}$ –1 drachm. Powdered leaves : Dose, $\frac{1}{4}$ –1 drachm.

Distinctive character—Leaves elliptic-lanceolate, about 2–4 inches long and $\frac{3}{4}$ inch broad, irregularly dentate at the margins. The upper surface is green and more or less varnished with resin, the lower surface reticulated and white with hairs. Taste, balsamic. Odour, aromatic and agreeable.

YEW.

Taxus Baccata, Linn.Fam. *Taxaceæ*.

Part used—Leaves.

Action—For epilepsy—seldom used.

Description—A large evergreen tree. Male and female flowers are born on separate plants. The fruit is a single oval seed nearly covered with a thick red coat resembling an abortive acorn. The leaves are about $\frac{1}{2}$ inch long, alternate, and curve outwardly and upwardly. Excepting the pulp of the fruit all parts are poisonous.

Dose of leaves, 1-5 grains.

YOHIMBE BARK. *Pansllystalla yohimba*, Pierre.Fam. *Rubiaceæ*.

Action—Has a reputation on the Continent as an aphrodisiac due to the poisonous alkaloid Yohimbine.

Preparations—Fluid extract: Dose, 5-15 minims.
Yohimbine hydrochloride: Dose, $\frac{1}{8}$ — $\frac{1}{4}$ grain, usually administered in the form of pills or tablets.

Description—Bark usually in channelled pieces, outer and inner surface reddish brown. Gives a red colouration when shaken with solution of ammonia. Imported from the Cameroons and the French Congo.

ZEDOARY.

Curcuma Zedoaria, Rosc.Fam. *Zingiberaceæ*.

Part used—Root. Grown in India.

Action—Aromatic, stimulant. It is chiefly employed as a carminative and stomachic, and acts in a manner

very similar to ginger, only milder. The infusion of $\frac{1}{2}$ ounce to 1 pint of boiling water is given in table-spoonful doses as required.

Preparation—Fluid extract : Dose, 10–30 drops.

Distinctive character—The rhizome is usually sold in transverse slices about $\frac{3}{4}$ –1 $\frac{1}{4}$ inch broad and $\frac{1}{4}$ inch thick. The outer surface is greyish, with a few circular striæ and small spiny points of root bases. The transverse section is greyish white, hard, and horny. Taste, bitterish and camphoraceous. Odour, recalling cardamoms and ginger.

Index of Therapeutic Action.

Alteratives. Blue Flag, Burdock, Echinacea, Figwort, Meze-
rean, Poke Root, Queen's Delight, Red Clover, Sarsaparilla,
Turkey Corn, Yellow Dock

Anodynes. Aconite, Coca, Henbane, Hops, Indian Hemp,
Jamaica Dogwood, Poppy

Anthelmintics. Aloes, Butternut, Koussou, Male Fern, Pink-
root, Tansy, Wormseed, Wormwood

Antiseptics. Barberry, Echinacea, Eucalyptus, Golden Seal,
Southernwood, Thyme, White Pond Lily, Wild Indigo

Antispasmodics. Asafetida, Black Haw, Chamomile, Cohosh
Black, Crampbark, Gelsemium, Ladies' Slipper, Lobelia,
Mistletoe, Pulsatilla, Scullcap, Stramonium, Sundew, Valerian

Aphrodisiacs. Damiana, Muirapuama, Saw Palmetto, Yohimbe.

Astringents. Avena, Bayberry, Bistort, Blackberry, Catéchu,
Cranesbill, Nettle, Oak, Pinus Bark, Rhatany, Tormentilla
Witch Hazel

Carminatives. Allspice, Angelica, Aniseed, Balm, Calamus,
Cinnamon, Cloves, Fennel, Ginger, Peppermint

Cathartics. Black Root, Buckthorn, Butternut, Jalap, Man-
drake, Mountain Flax, Rhubarb, Senna

Demulcents. Arrowroot, Comfrey, Couchgrass, Iceland Moss,
Irish Moss, Linseed, Liquorice Root, Marshmallow, Slippery
Elm

Diaphoretics and Sudorifics. Angelica, Balm, Boneset, Crawley Root, Ipecacuanha, Jaborandi, Pennyroyal, Prickly Ash, Yarrow.

Diuretics. Broom, Buchu, Clivers, Couchgrass, Hydrangea, Juniper Berries, Pareira, Parsley, Parsley Piert, Pellitory, Pipsissiwa, Shepherd's Purse, Stone Root, Uva-Ursi, Wild Carrot

Emetics. Bitter Root, Ipecacuanha, Lobelia, Mustard, Tag Alder, Vervain.

Emmenagogues. Aloes, Arrach, Black Cohosh, Blue Cohosh, Corn Ergot, Ergot, Ground Pine, Hellebore Black, Life Root, Motherwort, Mugwort, Pennyroyal, Rue, Southernwood, Tansy, Wood Sage.

Emollients. Linseed, Liquorice Root, Marshmallow, Slippery Elm

Expectorants. Benzoin, Elecampane, Horehound, Ipecacuanha, Lobelia, Lungwort, Mousear, Mullein, Pleurisy Root, Polypody Root, Senega, Squill, Wild Cherry, Yerba Santa

Febrifuges and Refrigerants. Acomte, Angustura, Alstoma, Avens, Balm, Boneset, Catnep, Crawley Root, Devil's Bit, Five-leaf-grass, Gelsemium, Hellebore American, Peruvian Bark, Wormwood

Hemostatics. Bistort, Cranesbill, Corn Ergot, Ergot.

Hypnotics and Narcotics. Belladonna, Bittersweet, Bugle-weed, Hemlock, Henbane, Indian Hemp, Mistletoe, Passion Flower, Poppy, Stramonium

Irritants. Bitter Apple, Bryony, Cayenne, Mustard, Poison Oak, Thuja

Laxatives. Buckthorn, Cascara Sagrada, Dandelion, Golden Seal, Mandrake, Manna, Mountain Flax

Mydriatics. Belladonna, Henbane, Stramonium

Nutritives. Arrowroot, Irish Moss, Iceland Moss, Salep, Saw Palmetto, Slippery Elm.

Purgatives. Aloes, Bitter Apple, Jalap, Mandrake, Scammony.

Sedatives. Aconite, Adonis, Belladonna, Black Haw, Crawley Root, Foxglove, Hemlock, Henbane, Jamaica Dogwood, Nightblooming Cereus, Passion Flower, Wild Cherry, Willow, Valerian, Hop.

Stimulants. Ammomac, Blood Root, Cascarella, Cayenne, Cinnamon, Cloves, Ginger, Horseradish, Jaborandi, Kola, Mustard, Nux Vomica, Paraguay Tea, Pennyroyal, Peppermint, Peruvian Balsam, Poplar, Prickly Ash, Snake Root, Wintergreen

Stomachics. Allspice, Avena, Calamus, Centaury, Chamomile, Condurango, Cubebs, Peppermint, Quassia, Rhubarb, True Unicorn Root

Tæniifuges. Kamala, Kousso, Male Fern

Tonics. Alstonia, Barberry, Bitter Root, Buckbean, Calumba, Chamomile, Chiretta, Centaury, Damiana, Gentian, Gold Thread, Hops, Kola, Nux Vomica, Peruvian Bark, Pipsissiwa, Poplar, Prickly Ash, Quassia, Strophanthus, Turkey Corn, Unicorn Root, Wild Cherry, Wormwood

Forms of Medicinal Preparations.

INFUSIONS.

These preparations are generally made of ground or bruised roots, barks, herbs, or seeds, by pouring boiling water over the drug, letting it stand for half an hour, occasionally stirring, and finally straining the clear liquid carefully off. Sometimes cold water may be used, as in the case of a few bitters, such as Calumba, Quassia, &c., when the ground drug will be found to yield its properties to water without heat. The usual quantity of drug to 1 pint of water is 1 ounce, but in a few cases where the drugs contain very active principles, less is sufficient. The dose of most infusions varies from a tablespoonful to a wineglassful or a teacupful.

DECOCTIONS.

As a rule decoctions are made by pouring cold water upon the cut, bruised, or ground drug, the mixture being boiled for twenty minutes to half an hour, cooled, and strained. Roots and barks are generally treated in this manner, as they need longer subjection to heat to extract their virtues. Decoctions are generally made in a strength of 1 ounce to the pint, but, as the water boils away, it is best to use a pint and a half, and the decoction should then when finished measure 1 pint. The length of time depends upon the readiness with which the drug gives up its active principles to the liquid. The dose varies from two teaspoonfuls to a wineglassful or two.

FLUID EXTRACTS.

These are most popular and convenient preparations, inasmuch as they, if properly made, are the most con-

centrated fluid forms in which vegetable drugs may be obtained. Fluid extracts are made in a variety of ways—evaporation by heat, *in vacuo*; cold percolation; high pressure, &c.—each drug being treated in that manner by which its properties may be best extracted and held in concentrated solution. The strength of a Fluid Extract is 1 in 1, or 1 ounce fluid represents 1 ounce of crude drug—for instance, 1 ounce of Fl. Ext. Golden Seal would represent the medicinal value of 1 ounce of Golden Seal Root. Fluid Extracts are daily becoming more popular, and, as they may be easily obtained, bid fair to rival the Tinctures and Preparations which have made Homœopathy so popular with those who seek an easy way of keeping a household stock of domestic remedies.

SOLID EXTRACTS

Are prepared by evaporating to the consistence of honey the fresh juices or strong infusions of vegetable drugs. They may also be manufactured by a spirituous process, in which case the alcohol is recovered by means of distillation from a strong tincture of the drug. Solid extracts are employed chiefly in the manufacture of pills, plasters, ointments, and in more recent years also for compressed tablets.

TINCTURES

Are spirituous preparations made with pure or diluted spirits of wine of drugs containing gummy, resinous, or volatile principles, or of any drugs rendered useless by the application of heat in any form, or of the great number of drugs which will not yield their properties to water alone, as their active principles are more readily extracted by spirit, better held in solution and preserved from deterioration.

Tinctures are generally made in a strength of 1 or 2 ounces of drug to the pint. The dose varies according to the active principles contained in the drug

PILLS

Are perhaps the best known and most largely used form of medicines, chiefly because of their handy form and general convenience, and also because of their comparative tastelessness. Pills are for the most part composed of concentrated extracts and alkaloids in combination with active crude drugs. They may be obtained coated or uncoated, but the pearl-coated pill is the general favourite, as it is quite tasteless, and the coating, if properly made, is readily soluble in the stomach.

TABLETS

Are made by compressing drugs into a very small compass. It is claimed for them that they are superior to pills, because they are more easily administered and by reason of their rapid dissolution in the stomach are quicker in their action.

CAPSULES

Are gelatine containers of convenient sizes for swallowing and holding oils, balsams, &c., which, because of their nauseous taste or smell, would be difficult to administer. Such drugs as Cod Liver Oil, Castor Oil, Copaiba, Sandalwood Oil, &c., are largely given in this form, because objection is made to the remedies in their natural state.

SUPPOSITORIES

Are small cones made of some convenient and easily soluble base, and used where it is desired to apply medicines per rectum. They are invaluable in the treatment of internal piles, cancers, fistula, &c. They are also made of nutrient ingredients, and passed into the bowels where patients are unable to take nourishment in the usual manner.

PESSARIES

Are similar to Suppositories, but are made in a suitable shape to be used in female complaints, where it is desirable to apply remedies to the walls of the internal passages.

CONCENTRATIONS

Are a class of medicinal resins or resinoids obtained from medicinal drugs by precipitation from their alcoholic preparations, either by water, distillation, or other suitable means.

Those at present in use contain one or more, but not always all the therapeutic virtues of the drugs from which they are made, and in many cases are only powdered extracts.

Weights and Measures.

1 grain ... ..	...	...	...	equals	0.0648 gramme.
1 scruple (20 grains) ... ..	...	...	..	"	2.2959 "
1 drachm (60 grains) ... ..	...	...	..	"	3.8879 grammes.
1 oz. avoirdupois (437.5 grains)	...	...	..	"	28.3495 "
1 oz. Apothecaries' or Troy (480 grains) ... ..	...	...	..	"	31.1035 "
1 lb. (7,000 grains) ... ..	...	...	..	"	453.59 grammes, or 0.4356 kilogramme.

1 minim (1 drop) ... ..	...	...	...	equals	0.0592 millilitre.
1 fluid drachm (60 min.) ... ..	...	...	..	"	3.5515 millilitres.
1 fluid oz. (8 drachms) ... ..	...	...	..	"	28.4123 "
1 pint (20 ozs) ... ..	...	...	..	"	0.5682 litre.
1 gallon (8 pints) ... ..	...	...	..	"	4.5459 litres.

1 metre (m) ... ..	...	...	...	equals	39.3701 inches.
1 decimetre (dm.), $\frac{1}{10}$ of metre	...	...	..	"	3.9370 "
1 centimetre (cm.), $\frac{1}{100}$ of metre	...	...	..	"	0.3970 inch.
1 millimetre (mm.), $\frac{1}{1000}$ of metre	...	...	..	"	0.0397 "

Domestic Doses and their Equivalent.

1 teaspoonful ... ..	...	...	...	equals	1 drachm.
1 dessertspoonful ... ..	...	...	..	"	2 drachms.
1 tablespoonful ... ..	...	...	..	"	$\frac{1}{2}$ fluid oz.
1 wineglassful ... ..	...	...	..	"	1 $\frac{1}{2}$ -2 fluid ozs. or 3-4 tablespoonfuls.
1 teacupful ... ..	...	...	..	"	4-5 fluid ozs. or 8-10 tablespoonfuls.

Herbal Compounds (Continental).

These are compounds used largely in France and Germany as household remedies. They are called "Species," and the liquid made, a "Tisane" or "Thee" (tea). They are prepared as ordinary infusions or decoctions (1 in 20), and the dose is a wineglassful frequently.

Anticatatarrh.

Goosefoot }
Rupturewort } of each equal parts (Infusion)

Antilacteous.

(Restraining the secretion of milk)

Elder Flowers	.	.	.	1 part.
Ladies' Bedstraw	.	.	.	1
St John's Wort	.	.	.	2 parts.
Senna Pods	.	.	.	3
				(Infusion)

Antispasmodic.

Yarrow Herb	..	..	..	1 part
Orange Flowers	...	...	...	2 parts
Valerian Root	...	...	...	3
				(Infusion)

Aromatic.

Sage	}	of each equal parts.
Rosemary		
Thyme		
Wild Thyme		
Hyssop		
Marjoram		
Wormwood		
Peppermint		

(Infusion)

Astringent.

Bistort	}	of each equal parts.	(Decoction.)
Tormentilla			
Pomegranate			

Bitter No. 1

Germander	}	of each equal parts.	(Infusion)
Centaury			
Holy Thistle			

Bitter No. 2.

Holy Thistle	}	of each equal parts.	(Infusion)
Germander			
Centaury			
Buckbean			

Carminative.

Aniseed	}	of each equal parts.	(Infusion.)
Fennel			
Caraway			
Coriander			

Cephalic.

(Nervine, for headache)

Rosemary	}	of each equal parts.	(Infusion.)
Thyme			
Wild Thyme			
Wild Marjoram			
Peppermint			
Lavender Flowers			
Rose Flowers			
Marjoram			

Cooling.

Melon Seed	}	of each equal parts.	(Infusion.)
Cucumber Seed			
Water Melon Seed			

HERBAL COMPOUNDS (CONTINENTAL).

39

Maidenhair
Hart's Tongue
Poppy Capsules
Vervain
Hyssop
Ground Ivy

Cough.

of each equal parts

(Infusion)

Diaphoretic.

Marshmallow Root
Liquorice
Orris Root
Ground Ivy
Aniseed
Coltsfoot Leaves
Red Poppy Flowers
Mullein

8 parts

4 "

4 "

4 "

1 part

4 parts

2 "

2 "

(Infusion)

Diaphoretic and Alterative.

(Espèces ou bois)

Sassafras Wood
Guaiacum
China Root
Sarsaparilla Root

of each equal parts

(Decoction)

Diaphoretic and Alterative.

Sassafras Wood
Elder Flowers
Red Poppy Flowers
Borage Leaves

of each equal parts

(Infusion)

Diaphoretic and Alterative

Guaiacum Wood
Burdock Root
Elm Bark
Bittersweet

1 part

2 parts

1 part

1 "

(Decoction)

Diaphoretic, Smith's.

Sarsaparilla Root
China Root
Liquorice Root
Guaiac Wood
Sassafras Wood

4 parts.

2 "

2 "

2 "

2 "

(Decoction)

Diuretic, No. 1.

Asparagus Root	}	of each equal parts.	(Decoction.)
Parsley ..			
Celery ..			
Fennel ..			
Butcher's Broom			

Diuretic, No. 2.

Marshmallow Root	}	of each equal parts	(Decoction.)
Asparagus ..			
Liquorice ..			
Strawberry ..			
Couchgrass ..			

Emmenagogue.

Black Hellebore Root	}	of each equal parts.	(Decoction.)
Valerian ..			
Mugwort Herb ..			
Wormwood ..			
Wormseed			

Emollient.

Marshmallow Flowers	}	of each equal parts.	(Infusion.)
Mallow ..			
Mullein ..			
Pellitory-of-the-Wall			

Infants' Corrective.

Fennel	2 parts.
Aniseed	2 "
Couchgrass	5 "
Polypody	5 "
Liquorice Root	10 "
Figs	10 "
John's Bread... ..	10 "
Lime Flowers	10 "
Hartshorn	10 "
	(Infusion.)

Pectoral, Fruit.

Dates (stoned)	}	of each equal parts.	(Infusion.)
Jujubes (fruit)			
Figs			
Currants			

Pectoral, No. 1 (Flowers).

Marshmallow Flowers	}	of each equal parts
Mallow		
Coltsfoot		
Violet		
Mullein		
Red Poppy		
Catsfoot		

(Infusion)

Pectoral, No. 2.

Mallow Flowers	...	...	...	...	1 part.
Red Poppy Flowers	..	...	..	..	2 parts
Ground Ivy	.	...	..	..	2 "
Maidenhair	.	..	..	...	2 "
Hyssop	...	...	..	...	2 "
Liverwort	.	..	..	...	2 "
Balm	.	..	..	...	2 "
Mullein Flowers	.	..	..	..	2 "
Jujubes (fruit)	.	.	..	..	4 "
Currants	.	..	..	..	6 "
Raisins	.	..	..	..	6 "
Marshmallow Root	.	..	..	...	6 "
Liquorice Root	.	..	..	...	10 "
Figs	.	..	..	...	12 "
John's Bread	.	..	..	...	20 "
Barley	.	..	..	..	20 "
				24	"

(Infusion)

Pectoral (Brust Thee), No. 3.

Aniseed	..	..	..	2 parts
Mullein Flowers	.	..	..	2 "
Coltsfoot Leaves	.	..	..	4 "
Orris Root	.	..	..	1 part
Liquorice Root	.	..	..	3 parts
Marshmallow Root	.	..	..	8 "

(Infusion)

Purgative (St. Germain).

(Thé de santé)

Fennel	..	1 part
Cream of Tartar		1 "
Elder Flowers		2 parts
Aniseed		2 "
Senna Leaves		4 "

(Infusion)

Swiss.

Wormwood
 Wood Betony
 Bugle
 Mountain Mint
 Water Germander
 Hyssop
 Ground Ivy
 Yarrow
 Marjoram
 Periwinkle
 Rosemary
 Sanicle
 Sage
 Thyme
 Wild Thyme
 Germander
 Vervain
 Arnica Flowers
 Catsfoot ..
 Coltsfoot ..

} of each equal parts.

(Infusion.)

Vermifuge.

Tansy
 Wormwood
 Wormseed (Levant)
 Chamomile

} of each equal parts.

(Infusion.)



GLOSSARY OF BOTANICAL TERMS EMPLOYED IN THIS WORK.

- Achene**—A one-seeded fruit, or part of a compound fruit, as in the Buttercup and Clematis, that does not open when ripe, and distinguishable from a seed by the remains of a style or stigma at the apex
- Acrid**—Leaving a more or less burning sensation in the mouth and throat when chewed
- Acuminate**—Tapering gradually to a fine point
- Albumen**—The substance in the seed surrounding the germ or embryo when it is small. It is present in the Castor Oil seed (only), in the Nux Vomica (horny), and in others fleshy or starchy, but it is not present in all seeds, those like the Bean and Almond having the nourishment stored up in their large seed-lobes
- Alliaceous**—Having an odour like garlic or onion
- Amplexicaul**—The base of the leaf developed so as to clasp or surround the stem
- Angular or annulated**—Applied to the root when constricted at intervals so as to form rings, as in Ipecacuanha
- Apetalous**—Having no petals. When only one row of floral leaves is present, even if coloured, it is considered to be the calyx, as in the Clematis, which is consequently apetalous.
- Appressed or adpressed**—A term applied to hairs when they lie close against the stem
- Arillus**—A fleshy growth from the point where the seed is attached to the ovary, as in the Nutmeg, of which mace is the arillus
- Aromatic**—Having a more or less agreeable odour
- Ascending**—Applied to the stem when half-way between erect and prostrate
- Anthers**—The part of the stamens containing the (usually powdery) pollen

- Awn**—A tapering thread-like body, terminating the flower scales in grasses or the seed in some of the *Apocynaceæ*, as in *Strophanthus* seed.
- Axillary**—Proceeding from the axil or angle where the leaf or bract is attached to the stem
- Balsamic**—Having a sweet odour like benzoin, usually due to the presence of compounds of benzoic or cinnamic acids.
- Barbed**—Furnished with sharp points bent backwards as in a fish-hook.
- Berry**—A soft fruit containing, when ripe, seeds loose in pulp, and usually crowned with calyx at the top, as in the Gooseberry; when the calyx is not present at the apex of a berry-like fruit, it is called baccate.
- Bifid**—Having two lobes or divisions about half-way through.
- Bipinnatifid**—A leaf twice divided in a pinnate or feather-like manner about half-way to the stalk or midrib.
- Biserrate**—Applied to the margin of a leaf where the margin is serrate, *i e.*, cut with oblique teeth like a large saw, each tooth being again cut with lesser saw-like teeth.
- Bracts**—Any leaf under a flower is a bract, whether scaly, coloured, or only a green leaf diminished in size. See Involucre and Phyllaries
- Bristles**—A term applied to stiff or rigid hairs
- Bulbs**—The bulb is usually more or less globular, composed of fleshy scales (modified leaves crowded on a short stem, as in the Madonna Lily). In some bulbs the outer scales become thin and membranous and enclose the fleshy scales, as in the Onion. In the Garlic all the modified leaves are membranous and the leaf-buds developed in their axils are alone fleshy, these fleshy buds being called cloves.
- Calyx**—The cup or outer row of floral leaves enclosing the rest of the flower, usually consisting of five pieces either free from each other as in the Buttercup, or united into a tube as in the Rose, only the upper portion being free.
- Capsule**—A fruit dry when ripe and opening at maturity, either by pores as in the Poppy, or by valves as in Stramonium, or transversely as in Henbane. It consists of two or many carpels
- Carpels**—Fruits are composed of one or more modified leaves which bear on the margin one or more seeds. Each of these leaves is known as a carpel. In the Buttercup they are distinct, in the Pea and Bean only one is developed. In the Orange many are united. In the Cocoa Nut three are united, but their internal sides are absorbed.

- Catkins**—A spike of male or female flowers usually without petals or calyx, as in the Willow and Alder. In the Alder the bracts under the female flowers become hard and woody.
- Channelled**—Applied to leaves having the upper surface concave.
- Ciliate**—Furnished with a row of hairs along the margin, like eyelashes.
- Cluster crystals**—Minute globes of crystals contained in leaf cells, sometimes called spheraphides, and usually consisting of calcium oxalate.
- Concentric**—Having several circles inside one another.
- Conchoidal**—Having a fracture somewhat concave, with curved lines, as in Aloes.
- Cordate**—Shaped like the heart on playing cards.
- Coriaceous**—Having a leathery texture.
- Corn**—A more or less globular shortened stem, having membranous scales, but no fleshy ones, as in *Colchicum* and *Crocus*.
- Corolla**—Applied collectively to the inner row of coloured floral leaves, whether distinct or united into one piece. When the calyx and corolla are similar in colour and size, the term *perianth* is applied, as in the Lily and Hyacinth, in which there are two similar rows of three pieces, the outer row alternate and overlapping the inner row at the base.
- Cortex**—Applied to the outer separable portion of a stem or fruit.
- Corymb**—An arrangement of flowers in which the flowerstalks are of different lengths, but all rise to a level at the top, the outside flowers opening first. When the central flower opens first it is called a *corymbose cyme*.
- Cotyledons**—The seed lobes as seen when splitting open a nut or almond. They contain the nourishment to support the young plant while the root is being developed, when albumen is not present.
- Crenate**—Leaves having rounded, not saw-like, teeth.
- Cruciform**—Arranged like a Maltese cross, as in the flowers of the Wallflower, and other cruciferous plants.
- Cuneate**—Wedge-shaped.

- Cuticle**—The thin outer skin coating the epidermis, but not usually separable
- Cyme**—This term is added to any inflorescence in which the central flower of the whole, or of a branch, opens first; thus the Elder has an umbellate cyme.
- Deciduous**—Falling off; applied to trees which are bare of leaves in winter, or to the flowers which fall when the fruit forms. If the calyx falls off as the flower opens, as in the Poppy, it is said to be caducous
- Decurved**—Curved downwards.
- Dehiscence**—A term applied to the opening of fruits
- Dentate**—Having sharp, nearly straight incisions in the margin of the leaf.
- Didynamous**—Having two stamens longer than the other two, as in plants of the *Labiata* and *Scrophulariaceæ*.
- Digitate**—Having five or more narrow segments, as in the leaf of the Lupin
- Disc**—The name given to a growth between the stamens and the pistil, as in the *Ruta graveolens* and to the centre of flowers in *Compositæ*.
- Disciform**—Shaped like a disc. Applied to the circular depressions on a rhizome where a deciduous stem has arisen, as in Solomon's Seal
- Efflorescence**—Covered with a fine powder, which is not permanent
- Elliptic**—Shaped like an ellipse.
- Emarginate**—Having an indentation at the apex of the leaf.
- Embryo**—The young plant in the seed, consisting of one or two cotyledons, with a minute leaf-bud above and a minute root below
- Endocarp**—The inner layer of the fruit, corresponding to the inner surface of the carpel (which, like the leaf, has three layers). In the Plum, the endocarp forms the stone, the inner layer or mesocarp forms the flesh, and the outer or epicarp forms the skin
- Entire**—Not toothed at the margin
- Epidermis**—The skin of the leaf In the Windsor Bean leaf it can easily be peeled off

Exfoliating—Splitting off in layers like the bark of the Plane Tree and Sycamore.

Falcate—Curved like a scythe blade

Feather-veined—Having the lateral veins proceeding straight to the margin, as in the leaf of *Rhamnus Frangula*

Female plant—When the male and female flowers are on distinct plants This arrangement is called dioicous, and when on separate flowers on the same plant, monoicous.

Filiform—Thread-shaped

Florets or flowerlets—Applied to the central flowers in the flowerheads of the *Compositæ* The central tubular florets are distinguished as florets of the disc, and the outer strap-shaped ones as florets of the ray.

Flowerheads—An arrangement of flowers in a compact group surrounded usually with several rows of bracts See Involucre and Phyllaries

Fluorescence—Applied to liquids which present two different colours when viewed at different angles

Fluted—Cylindrical but channelled vertically like a column.

Follicaceous—Leafy Applied to the Thallus, or stemless growths of *Lichens*, *Hepaticæ* and *Algæ*, when the segments are broad; also to bracts when they resemble the leaves except in being smaller

Fracture—The transverse surface of a bark or root when broken, if not fibrous or in layers it is described as short.

... of these fleshy bracts united
... ving no proper
... nes at the top
... he term is also
... me species of

Cupressus

Glands—Cells containing oily or mucilaginous secretions, sometimes forming a distinct receptacle as in the *Eucalyptus* Leaves, and sometimes forming the terminal head of a hair as in the *Geranium*, or they may be stalkless as in the *Hop*

Halberd-shaped or hastate—Shaped like a halberd as in the leaf of *Rumex Acetosella*

Heartwood—The central portion of a tree trunk, often filled with a deposit of colouring matter or resin, as in *Lignum vitæ*

- Hermaphrodite**—Having male and female organs, *i. e.*, stamens and pistil, in the same blossom.
- Hilum**—The scar on a seed indicating where it has been attached by a stalk to the wall of the ovary; this name is also applied to the central spot in starch grains.
- Imbricated**—Overlapping like the tiles of a roof.
- Imparipinnate**—A pinnate leaf having an odd leaf at the apex.
- Incise-serrate**—The term incised is applied when the teeth are deeper at intervals.
- Indusium**—The membranous covering over the ^{stomata} sori, or groups of spore cases, of ferns.
- Inflorescence**—The arrangement of flowers in plants
- Internodes**—The intervals between the leaves on the stem.
- Interruptedly pinnate**—Having smaller leaflets between the ordinary leaflets, as in Agrimony.
- Involucre**—A ring of bracts outside a flowerhead in the *Compositæ*. In the *Umbelliferae* the basal ring is called the general involucre, and the ring under the secondary umbels, the partial involucre
- Keeled**—Having a projecting line underneath, or formed like the keel of a boat
- Laminate**—Formed in thin layers. The name of lamina is also given to the blade or flat part of a leaf.
- Lanceolate**—Oval, but pointed at both ends, like a lance head
- Leaflet**—The parts of a compound leaf when they are divided down to the midrib or rachis.
- Legume**—A fruit consisting of a single carpel, which opens on one side only, corresponding to the margin of the carpellary leaf.
- Lenticels**—Corky developments of the stomata or breathing pores of the bark
- Lenticular**—Shaped like a lens, as in the Lentil
- Lichen**—A group of cryptogamic plants growing on rocks and trees, usually greyish or yellowish, without distinction of stem and leaf, but variously branched. The fructification forms a small disc, usually brown or blackish on the surface, or black points, dots, or lines
- Ligulate**—Strap-shaped

Lyrate—Applied to pinnatifid leaves in which the terminal lobe is larger than the others and rounded.

Medullary rays—Slender lines of soft tissue that connect the pith with the bark; usually paler than the wood, as seen in a transverse section of the wood.

Micropyle—The minute opening of the seed through which the radicle of the embryo pushes out. In the Bean it can be seen near the hilum.

Moss—Minute plants with green leaves with or without a single vein, or a forked vein, and bearing stalked or stalkless capsules, usually opening transversely, containing spores, and often furnished with teeth

Mucronate—Furnished with a short sharp point at the apex.

Muller-shaped—Shortly cylindrical with one flat end and the opposite one rounded, like a muller.

Multicellular—Hairs, or fruits, composed of many cells

Mycellum—The loose thread-like mass forming the plant of fungi. In the Mushroom it is loose and cottony, and known as mushroom spawn, in Ergot it is compacted into a hard mass known as a sclerotium

Node—The point of the stem whence the leaves arise

Nucleus sheath—The line in endogenous roots which separates the outer ring from the central portion

Nut—A fruit originally composed of three carpels, which ultimately becomes one-celled, and contains one seed, as in the Cocoa Nut and Hazel Nut. In the young state the three carpels are indicated by the presence of three stigmas

Oblanceolate—Lanceolate, but wider at the upper end. As a rule the prefix *ob* means the reverse shape

Obovate—Ovate reversed

Opposite—Applied to leaves when two arise from opposite sides of the same node

Ovary—The young fruit containing seeds, surmounted by a stigma, or a stigma borne on a stalk called the style. The stigma represents the apex of the carpellary leaf, and therefore indicates the number of carpels present in the fruit, as in the Poppy fruit. The presence of the stigma distinguishes a small fruit from a seed

Ovoid—Nearly, but not quite, egg-shaped

Paleæ—The two scale-like bracts enclosing the stamens and pistil in the flower of a grass, the outer usually larger and often furnished with an awn; also the membranous scales forming the bract of each floret of the disc in the flowerhead of the *Compositæ*.

Palisade—Closely-packed, narrow, cylindrical cells forming the upper half of the leaf under the epidermis in most plants.

Palmate—Shaped like the palm of the hand, with five or more lobes as in the Sycamore leaf.

Panicle—An inflorescence in which the first branches are branched again, the outside flowers of each branch opening first.

Papilionaceous—Shaped like a Pea blossom.

Papillæ—Small raised points, or very short threads.

Pappus—The limb of the calyx in a composite flower, the veins if the hairs are simple feathery, i.e. laterally.

Pericarp—The whole of the husk of the fruit, consisting of three layers—epicarp, mesocarp, and endocarp.

Petals—The inner, usually coloured, row of the leaves of the flower.

Petiole—The stalk of the leaf.

Phyllaries—The bracts forming one or more rings outside the flowerhead of a composite flower.

Pilose—See Pappus.

Pinnate—Divided in a feather-like manner to the rachis. When there are smaller leaflets between the larger ones, the leaf is said to be interruptedly pinnate, if the leaflets are in pairs with a terminal odd one, it is imparipinnate.

Pinnatifid—Divided in a feather-like fashion about half-way to the midrib or rachis.

Pinnatisect—A pinnate leaf divided about three-quarters of the distance to the midrib.

Pistillate—The flower bearing the female organ or pistil, which consists of ovary, style, and stigma.

Pitted—Having very small depressions.

Placenta—The portion of the ovary to which the seeds are attached. It usually consists of the thickened edges of the carpellary leaf turned inside the ovary, but sometimes is a growth formed from their edges, as in the Poppy capsule.

Procumbent—Prostrate branches with the end slightly raised

Proposals—Salt—

—green, and the persalts, red

Pubescent—Having short downy hairs

Pyrenes—The fruit of the *Labiata* and *Boraginaceæ*, resembling seeds, but each consisting of a half carpel containing one seed.

Pyriform—Shaped like a pear

Quilled—Applied to bark which becomes inrolled when dry, as in Cinnamon and Cinchona

Raceme—An inflorescence in which flowers having stalks of equal length are arranged along a central stem, the lowest flower opening first.

Rachis—The backbone or central rib of a large, much divided leaf, like a Fern

Radical—Leaves arising from the top of the root or rootstock

Raphe—A thread in the inner seed coat consisting of vessels connecting the interior of the ovule with the placenta, as in the Orange seed

Raphides—Needle-like crystals of oxalate of calcium, found in the cells of plants, as in the Squill root

Receptacle—The name given to the disc-like top of the stem to which the florets of a composite flower are attached. The same name is also given to the cavities in plant tissues containing oil or mucilage

Reniform—Shaped like a kidney

Reticulated—Covered with a network of veins or lines

Revolute—Rolled back at the edges

Rhizome—A prostrate stem more or less embedded in the soil,

Rhombic—Shaped like a rhomb

Rhomboidal—Irregularly rhombic.

Rootstock—*See* Rhizome.

Rosettes—Leaves closely and spirally arranged, as in the House-leek and in the double flower of the Rose.

Rotate—Wheel-shaped.

Ruminated—Albumen is said to be ruminated when the inner seed coat is folded into its substance, as in the Nutmeg and Areca Nut.

Scyphi—The wineglass-like organ bearing the fructification at the apex in the genus of lichens called *Cladonia*.

Secondary umbels—Called also partial umbels; when each stalk of an umbel bears a smaller or secondary umbel at its apex.

Serrate—Having oblique teeth like a saw.

Sessile—Having no leafstalk, and therefore, so to speak, sitting on the stem.

Sinuate—Having incisions rounded at the base, as in the Oak leaf.

Spatulate—Shaped like a spatula or flattened spoon.

Spike—An inflorescence in which flowers without stalks are arranged along a central stem, either loosely or densely, as in Agrimony and Plantain.

Spine—The hardened projecting vein of a leaf, as in the Holly and Thistle.

Spore cases—Receptacles containing spores.

Spur—A more or less tubular projection at the base of the corolla, as in the Toadflax and Columbine

Stamens—The male organ of the flower, consisting of two anthers, usually oblong or reniform in shape, containing pollen, and often borne on a stiff thread or filament.

Staminode—A barren stamen, containing no pollen, as in *Scrophularia*.

Stellate—With rays like a star.

Stigma—The sticky apex of the style of the female organ of the flower, to which pollen is carried by insects or the wind.

Stipules—Small leaf-like organs, at the base of the leaf-stalks, or attached to the stem between the leaves. In the *Polygonaceæ* membranous stipules form a sheath, called an *ochrea*, round the stem

- Stipulets or stipels**—Small leaflets at the base of the leaflets in compound leaves, as in the Dwarf Elder
- Stomata**—Microscopic openings in the surface of the leaf, mostly on the under surface, whereby air enters the tissues.
- Stone cells**—Cells hardened by internal deposits, appearing to the naked eye or under a lens as hard points, in bark, &c
- Striated**—Marked with more or less parallel lines
- Style**—The filament connecting the stigma and ovary.
- Subulate**—Shaped like an awl
- Suckers**—Underground branches from the stem or root that arise at a distance from the stem, as in the Raspberry
- Syconus**—A name given to the fruit of the fig, derived from the Greek name of the Fig
- Tangential**—A vertical section at right angles to the centre of the stem
- Terminal**—At the end of a shoot or branch
- Ternate**—A leaf divided into three distinct segments
- Tetrahedral**—Having four sides
- Thallus**—The flat branching growth, of uniform texture, of cryptogams
- Toothed**—More or less pointed equal-sided incisions in the margin of the leaf
- Tortuous**—Twisted and undulated
- Trifid**—Nearly divided into three segments
- Trifoliate**—Having three distinct leaflets, as in Clover and Bogbean
- Tripinnate**—Three times divided in a pinnate manner.
- Truncate**—Appearing as if cut off at the end, as in the leaf of the Tulip Tree
- Tuber**—An underground, more or less globular stem, bearing leaf-buds, as in the Potato and Artichoke
- Umbel**—An arrangement of flowers having stalks proceeding from one point, and of equal length, so as to form a level surface, the outer flowers opening first
- Unisexual**—Flowers having either stamens or pistils, but not both together
- Vascular**—Consisting of vessels or minute tubes
- Vittæ**—The oil receptacles in the fruits of the *Umbelliferae*, they usually appear as dark vertical lines between the ridges of the fruit
- Whorl**—A circle of leaves around a node, as in *Galium*

ABBREVIATIONS OF NAMES OF AUTHORS OF BOTANICAL NAMES.

Ach.	...	...	Acharius, Erick
Adam	...	...	Adam, Johan Friedrich
Ait	...	...	Aiton, William Townsend
Allem	...	...	Allemao, Francisco Freire
Aguiar	...	...	Aguiar, J. M de (Phar. Jour. (3) x. p. 42)
Arn.	...	...	Arnott, George Arnold Walker
Aublet	...	...	Aublet, Jean Baptiste Christophore Fusée
Baill.	...	...	Baillon, Henri Ernest.
Baker	...	...	Baker, John Gilbert
Bart & Wendl	...	{	Bartling, Friedrich Gottlieb
			Wendland, Heinrich Ludwig
Beauv.	...	...	Beauvois, A. M. T. J. Palisot
Benn	...	...	Bennett, John Joseph
Benth	...	...	Bentham, George
Bercht.	...	...	Berchtold, Friedrich, Graf von
Berg & Schmidt	...	{	Berg, Otto Carl
			Schmidt, C F.
Bernh.	...	..	Bernhardi, Johann Jakob
Bieb	...	...	Bieberstein, L B Fr Marschal von
Blume	..	.	Blume, Carl Ludwig
Boiss. & Buhse	.	{	Boissier, Edmond
			Buhse, F.
Borkh.	...	..	Borkhausen, Moritz Balthasar
Buch.-Ham	...	...	Buchanan-Hamilton, Francis
Burm	..	...	Burmah, Johannes
Brown	...	..	Brown, Robert
Carr.	..	...	Carrière, Élie Abel
Cav.	..	..	Cavanilles, Antonio José
Chaix	..	.	Chaix, Dominique, Abbé
Chamisso	...	...	Chamisso, Adalbert von
Choisy	..	...	Choisy, Jacques Denys
Colebr.	..	...	Colebrooke, Henry Thomas
Correa	..	.	Correa da Serra, José Francisco
Crantz	..	...	Crantz, Heinrich Johann Neptomuk von
Cyrril.	.	...	Cyrrillus, Patriarch of Alexandria
D C.	.	.	De Candolle, Augustin Pyramus
Del	..	..	Delile, Alire Raffeneau
Desf	.	.	Desfontaines, Rene Lonche
Desr	.	..	Desrousseaux, Louis Augustin Joseph

Don, G. ...	...	Don, George
Dry. ...	...	Dryander, Jonas
Dunal ...	...	Dunal, Michel Felix
Dur .	...	Du Roi, Johann Philipp
Ehrh. ...	...	Ehrhart, Friedrich
Ell .	...	Ellis, John
Eng ...	...	Engler, Adolf
Fisch ...	..	Fischer, Friedrich Ernst Ludwig von
Forsk. ...	...	Forskal, Pehr
Forst .	...	Forster, John Heinhold
Fries ...	...	Fries, Elias Magnus
Gaertn ...	...	Gaertner, Joseph
Goldb. .	.	Goldbach, Karl Ludwig
Grah ...	...	Graham, John
Gray, A ...	...	Gray, Asa
Greene ...	..	Greene, Edward Lee
Haenke .	...	Haenke, Thaddæus
Hance .	...	Hance, Henry Fletcher
Haw .	...	Haworth, Adrian Hardy
Hayne, ...	...	Hayne, Friedrich Gottlob
Henn ...	...	Henning, Paul
Heyne .	.	Heyne, Benjamin
H, B, & K. ...	...	{ Humbolt, Friedrich Alexander von
		{ Bonpland, Aimé
		{ Kunth, Karl Sigismund
Hoffm ...	...	Hoffmann, George Franz
Holmes .	...	Holmes, Edward Morell
Hook f .	...	Hooker (<i>filius</i>), James Dalton
Houtt ...	...	Houttyn, Martin
Huds .	...	Hudson, William
Jacq. ...	..	Jacquin, Joseph von
Kar. & Kir. .	..	{ Karelín, Georg
		{ Kuhlrow, Johann
Ker-Gawl .	.	Ker, John Bellenden, <i>alias</i> Gawler
King .	...	King, George
Koch .	.	Koch, Wilhelm Daniel Joseph
Klotzsch... ..	...	Klotzsch, Johann Friedrich
Kunth .	.	Kunth, Karl Sigismund
Kuntze .	.	Kuntze, Otto
Kütz. .	.	Kützing, Friedrich, Traugott
Labill .	..	Labillardiere, Jacques Julien Houten de
Lam. or Lamk .	..	{ La Marck, Jean Baptiste Antoine
		{ Pierre Mounet, Chevalier de
Lamb .	.	Lambert, Aylmer Bourke
Lemaire ...	.	Lemaire, Charles
Léveillé .	.	Léveillé, Joseph Henri
L'Hérit .	.	L'Héritier de Brutelle, Charles Louis
Lindl .	.	Lindley, John
Linn .	.	Linnæus, Carl
Linn f .	.	Linnæus (<i>filius</i>), Carl von

Loisel. ...	Loiseleur-Destongchamps, Jean Louis Auguste
Marsh. ...	Marshall, Humphry
Mart. ...	Martius, Karl Friedrich Philipp von
Maton ...	Maton, William George
Medik. ...	Medikus, Friedrich Casimir
Mich. or Michx.	Michaux, André
Miers ...	Miers, John
Müll. ...	Miller, Philip
Miq. ...	Miquel, Friedrich Anton Wilhelm
Möench ...	Möench, Konrad
Mol. ...	Molina, Juan Ignazio
Muell., F. ...	Mueller, Ferdinand von
Muhl. ...	Muhlenberg, Henry
Murr. ...	Murray, Johann Andreas
Neck. ...	Necker, Noel Joseph de
Nees. ...	Nees von Esenbeck, Christian Gottfried
Nees, T. & Eberm.	{ Nees von Esenbeck, Theodor Friedrich Ludwig
	{ Ebermaier, Karl Heinrich
Nichols. ...	Nicholson, George
Nutt. ...	Nuttall, Thomas
Oliver, D. ...	Oliver, Daniel
Olivier ...	Olivier, Guillaume Antoine
Ort. ...	Ortega, Casimir Gomez
Pav. ...	Pavon, José
Pell. or Pellet ..	Pelletier—Sautelet—
	Ph. Journ (1) viii. p. 574
Pers. ...	Persoon, Christian Hendrik
Pierre ...	Pierre
Planch. ...	Planchon, Gustav
Pohl ...	Pohl, Johann Emmanuel
Presl ..	Presl, Karel Boriwog
Pursh ...	Pursh, Friedrich Traugott
Rafin ..	Rafinsque, Schmaltez Constantino
Retz ..	Retzius
Reg ..	Regel, Edward
Rich., A. ..	Richard, Achille
Risso ..	Risso, J. A.
Rosc ..	Rosco, William
Ross ..	Ross, John
Roth ...	Roth, Albrecht Wilhelm
Roxb ...	Roxburgh, William
R. & P. ..	{ Ruiz, Lopez Hipolito
	{ Pavon, Joseph
R. & S ..	{ Roemer, Johann Jakob
	{ Schultes, Joseph Auguste
Salisb. ..	Salisbury, Richard Antony
Schlecht. ..	Schlechtendal, Diedrich Friedrich Leonhard von

Schott	Schott, Heinrich Wilhelm
Schrad.	Schrader, Heinrich Adolphus
Schreb	Schreber, Johann Daniel Christian von
Schum.	Schumann, Karl
Scop.	Scopoli, Johann Anton
Sieb & Zucc ..	{ Siebold, Philip Franz von
	{ Zuccarini, Joseph Gerhard
Sims	Sims, John
Sm.	Smith, Sir James Edward
Soland	Solander, Daniel
Spreng.	Sprengel, Kurt
Stackh.	Stackhouse, John
Stapf.	Stapf, Otto
Steinh.	Steinheil, Adolf
Steud	Steudel, Ernest Gottlieb
St. Hil.	St. Hilaire, Augustin François César
Stokes	Stokes, Jonathan
Sw.	Swartz, Olaf
Sym	Symons, Jellingner
Tausch	Tausch, Ignaz Friedrich
Thunb.	Thunberg, Carl Pehr
Torr	Torrey, John
Trev	Trevisan, Victore Conte
Triana	Triana, José
Tul	Tulasne, Louis René
Vahl	Vahl, Martin
Vis	Visiani, Roberto de
Walt.	Walter, Thomas
Warb.	Warburg, Otto
Wats, S.	Watson, Sereno
Web	Weber, Friedrich
Weddell.	Weddell, Hugh Algernon
Wend	Wenderoth, Georg Wilhelm Franz
W. & K.	{ Waldstein, Franz Adam, Graf von
	{ Kitarbel, Paul
Willd.	Willdenow, Karl Ludwig







